PACIFIC SALMON COMMISSION JOINT TRANSBOUNDARY TECHNICAL COMMITTEE

ESTIMATES OF TRANSBOUNDARY RIVER SALMON PRODUCTION, HARVEST AND ESCAPEMENT AND A REVIEW OF JOINT ENHANCEMENT ACTIVITIES IN 2002

REPORT TCTR (13)-2

July 2013

ACRONYMS

ADF&G	Alaska Department of Fish and Game
AF	Aboriginal Fishery
CAFN	Champagne Aishihik First Nation
CPUE	Catch per unit effort
CWT	Coded Wire Tag
DFO	Department of Fisheries and Oceans (Canada)
DIPAC	Douglas Island Pink and Chum (Private Hatchery)
ESSR	Excess Salmon to Spawning Requirement (surplus fishery license)
IHN	Infectious Hematopoietic Necrosis (a virus which infects sockeye salmon)
LCM	Latent Class Model
MEF	Mid-Eye-Fork (fish length measurement)
POH	Post-Obital-Hyperal (fish length measurement)
PSC	Pacific Salmon Commission
SMM	Stikine Management Model
SPA	Scale Pattern Analysis
TAC	Total Allowable Catch
TRTFN	Taku River Tlingit First Nation
TBR	Transboundary River
TTC	Transboundary Technical Committee
YSC	Yukon Salmon Committee

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EXECUTIVE SUMMARY

Final postseason estimates of catches and escapements of Pacific salmon returning to the transboundary Stikine, Taku, and Alsek Rivers for 2002 are presented and compared with historical patterns. Relevant information pertaining to the management of appropriate U.S. and Canadian fisheries is presented and the use of inseason management models is discussed. Results from transboundary river sockeye salmon *Oncorhynchus nerka* enhancement projects are also reviewed.

Stikine

The 2002 Stikine River sockeye salmon run is estimated at 79,300 fish, of which approximately 30,300 fish were harvested in various fisheries including test fisheries. An estimated 49,500 Stikine River fish escaped to spawn including 2,000 fish, which migrated to the Tuya River block and were not harvested and 2,000 fish which were captured and placed above the Tuya River barrier. The catch and the run were below average. The Tahltan Lake sockeye salmon weir count of 17,740 fish was slightly below the lower bound of the goal range (18,000 to 30,000 fish). The estimated U.S. commercial catch of Stikine River sockeye salmon in Districts 106 and 108 was 8,100 fish and the Canadian sockeye harvest was 10,900 inriver commercial, 6,400 aboriginal, and 500 excess salmon to spawning requirement (ESSR). The inriver test fishery harvested 4,400 sockeye salmon and there was no marine test fishery in 2002. The postseason estimate of 79,300 sockeye salmon was very close to the preseason forecast of 79,600 fish. The Stikine Management Model (SMM) predicted a run greater than the preseason forecast after week 27. Weekly inseason model forecasts ranged from 111,000 to 135,300 sockeye salmon; the final inseason model prediction was 111,600 fish (both U.S. and Canada), with a total allowable catch (TAC) of 31,800 fish. Based on the postseason run size estimates and TAC calculations of 4,300 Stikine River fish for each country, Canada harvested 407% and the U.S. harvested 190% of their TACs. The broodstock collection removed 3,100 sockeye salmon and the otolith sampling removed 400 sockeye salmon from the escapement to Tahltan Lake leaving a spawning escapement of 14,300 fish. The estimated spawning escapement of 27,200 mainstem Stikine River sockeye salmon was within the objective of 20,000 to 40,000 fish for this stock group. The inriver sockeye salmon run calculated from mark-recapture study of 71,900 fish was above the inriver run estimate generated from the test fishery catch per unit effort (CPUE) of 71,300 fish.

The total harvest of Stikine River Chinook salmon *O. tshawytscha* in Canadian commercial and aboriginal fisheries was 1,400 large (below average) and 600 jacks (above average). An additional 1,700 large (400 females released) and 300 jack Chinook salmon were taken in the Canadian inriver test fishery. The U.S. marine catch of Chinook salmon (all stocks) in the District 106 and 108 mixed stock gillnet fisheries was 500 fish; below average. The Chinook salmon spawning escapement of 7,500 large adults through the Little Tahltan River weir was above the recently revised joint U.S./Canada escapement goal range of 2,700 to 5,300 fish; above average. The total Stikine River escapement of large Chinook salmon estimated from a mark recapture study is 50,200.

As with Chinook salmon, the U.S. marine harvest of Stikine River coho salmon *O. kisutch* is unknown since there is no stock identification program for this species. Mixed stock coho salmon harvest in District 106 was 226,600 and the coho salmon harvest in District 108 was 21,100; both Districts were above average. Alaskan hatchery fish comprised approximately 32% (80,000 fish) of the coho salmon harvest from the two districts. The Canadian inriver coho salmon harvest was 80 fish; well below average. The mark-recapture estimate indicated a total inriver escapement of 139,200 coho salmon (range 98,200 to 195,200 fish), well above the interim escapement goal range of 30,000 to 50,000 fish. Aerial surveys of coho salmon spawning index sites also indicated a spawning escapement well above average.

Taku River

The postseason estimate of the 2002 Taku River sockeye salmon run is 253,200 fish, including an estimated catch of 149,200 fish and an above-border spawning escapement of 103,600 sockeye salmon. The run size was average and the escapement was above the escapement goal range of 71,000 to 80,000 fish. An estimated 116,700 Taku River sockeye salmon were harvested in the District 111 commercial fishery and an estimated 1,300 sockeye salmon were harvested in the U.S. inriver personal use fishery. District 111 commercial harvest was average. Canadian inriver commercial harvested 31,100 sockeye salmon and aboriginal fishery harvested 200 sockeye salmon. The Canadian commercial harvest was average. In 2002, Canada harvested an estimated 18%, and the U.S. took 66% of the TAC.

The harvest of large Chinook salmon in the Canadian commercial fishery in the Taku River was below average, 1,600 fish; in addition, 300 jack Chinook salmon were harvested, which was above average. The Canadian aboriginal fishery in the Taku River harvested 37 large Chinook salmon. The harvest of 1,800 Chinook salmon in the District 111 mixed stock gillnet fishery was below average, and 13% of the catch was estimated to be of Alaska hatchery origin. The escapement of 8,300 Chinook salmon counted in Taku River index areas was below average but within the recently revised index escapement goal range of 5,800 to 10,500 fish. The above-border mark-recapture estimate of 48,800 Chinook salmon is within the escapement goal range of 30,000 to 55,000 fish.

The estimated above border run of Taku River coho salmon in 2002 is 223,200 fish, which was above average. The Canadian inriver commercial harvest of 3,100 coho salmon was average. After upriver Canadian catches are subtracted from the inriver run, the above-border-spawning escapement is estimated at 219,400 coho salmon, which exceeds the minimum escapement goal of 38,000 fish. The U.S. harvest of 39,800 coho salmon in the District 111 mixed stock fishery was below average. Alaskan hatcheries contributed an estimated 4% of the District 111 harvest, or 1,600 fish.

The harvest of 77,600 pink salmon *O. gorbuscha* in District 111 was below average. Pink salmon were not retained in the Canadian commercial inriver fishery in 2002. The escapement of pink salmon to the Taku River was likely below average as evidenced by the fish wheel catch and release of 5,700 pink salmon, which was below average.

The catch of chum salmon *O. keta* in the District 111 fishery was 231,000 fish; composed of 230,100 summer run fish (prior to mid-August) and 900 fall run fish. The harvest of summer chum salmon, primarily Alaskan hatchery stocks, was below average. The harvest of fall chum salmon, composed of wild Taku River and Port Snettisham stocks, was below average. As with pink salmon, there was non-retention of chum salmon in the Canadian inriver fishery and the reported catch was 0 fish in 2002. Although spawning escapement is not known the Canyon Island fish wheel catch of 200 chum salmon was below average.

Alsek River

The Alsek River sockeye salmon harvest of 16,900 fish in the U.S. commercial fishery was average. The Canadian inriver harvest of 2,300 fish was above average. The Klukshu River weir count of 25,700 sockeye salmon was above average and was above the goal-range of 7,500 to 15,000 fish. The count of 11,900 early-run sockeye salmon (count through August 15) was above average and a record high count. The late run count of 13,800 fish was above average for the same period. The mark-recapture program indicated an Alsek River sockeye salmon run above Dry Bay of 79,500 fish with the Klukshu stocks representing 32% of the total Alsek River run.

The Chinook salmon run to the Alsek River seemed average to below average. The U.S. Dry Bay catch of 700 Chinook salmon was above average. The combined Canadian sport and aboriginal fishery catch of 300 Chinook salmon was below average. The 2,200 Chinook salmon counted through the Klukshu River weir was below average. Of the total count, 2,100 Chinook salmon were estimated to have spawned, thus achieving the escapement goal range of 1,100 to 2,300 Chinook salmon. The mark-recapture program indicated an inriver run of 9,600 large fish, below average. The Klukshu stock contributed 24% of the large Chinook salmon spawning escapement in the Alsek River.

Current stock assessment programs prevent an accurate comparison of the Alsek River coho salmon run with historical runs. The U.S. Dry Bay catch of 9,500 coho salmon was above average, while the combined Canadian inriver aboriginal and sport fishery catch of 300 fish was above average. The operation of the Klukshu weir does not provide a complete enumeration of coho salmon into this system since it is removed before the run is over; however, it does provide an annual index. The count of 9,900 coho salmon was above average..

Enhancement

Eggs and milt were collected from the year 2002 sockeye salmon escapements at Tahltan and Tatsamenie Lakes. For the sixth year in a row the 6.0 million egg-take goal was not achieved at Tahltan Lake due to low escapement. A total of 4.0 million eggs were collected at Tahltan Lake. At Tatsamenie Lake, 2.5 million eggs were collected for the hatchery. No eggs were collected for the in-lake incubation project.

Outplants of 2001 brood-year sockeye salmon fry in May and June 2002 included 2.53 million fry into Tahltan Lake, no fry into Tuya Lake, and 2.23 million fry into Tatsamenie Lake. Green-egg to planted-fry survivals were 77.8% Tahltan Lake, and 58.8% Tatsamenie Lake. Survival to emergence was average for Tahltan Lake and below average for Tatsamenie Lake. Three incubators from the Tatsamenie Lake 2001 brood year were lost to IHNV. Losses from IHN have occurred in the past at Snettisham Hatchery and are expected in sockeye salmon culture.

Outmigrant smolt sampling was conducted at Tahltan and Tatsamenie Lakes in 2002. Total emigration from Tahltan Lake was an estimated at 1,874,000 smolts with approximately 44% (654,000 outmigrants) from past fry plants. Sampling at Tuya Lake was not conducted in 2002. The Tatsamenie Lake smolt mark-recapture program estimated that 233,000 (S.E. 40,735), smolts emigrated from the lake with planted fish contributing approximately 42% of the total (88,473 smolts). Estimates of survival of the brood year 2000 fry plants indicate smolt from planted fry had a 6-fold increase over wild for one release group. Estimates of survival from fry to smolt were early fed hatchery group 4.6%, late fed hatchery group 1.4%, and wild fish 0.8 %.

The egg incubation and thermal-marking program was continued at Snettisham Hatchery in 2002. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Adult sockeye salmon otoliths were processed inseason by the ADF&G otolith lab to estimate the weekly contribution of fish from U.S./Canada TBR fry planting programs to the District 106, 108, and 111 gillnet fisheries and to Canadian commercial fisheries in the Stikine and Taku Rivers. Contribution estimates of planted fish to Alaskan catches were 4,700 Stikine River sockeye salmon to District 106 and 108 (8% of that catch) and 700 Taku River sockeye salmon to District 111 (<1% of that catch). Estimates of contributions to Canadian fisheries included 6,100 sockeye salmon (35% of that catch) to Stikine River fisheries and 50 sockeye salmon to the Taku River fisheries (<1% of that catch).

INTRODUCTION

This report presents estimates of the 2002 catch and escapement data for Pacific salmon runs to the transboundary Stikine, Taku, and Alsek Rivers and discusses management actions taken during the season. Catch and effort data are presented by management week (U.S. statistical week) for each river for both U.S. and Canadian fisheries. Spawning escapement data for most species are reported from weir counts or other escapement monitoring techniques. Joint enhancement activities on the Stikine and Taku Rivers are also summarized.

The Transboundary Technical Committee (TTC) met prior to the season to update joint management, stock assessment and enhancement plans and determines forecasts for run strengths and initial total allowable catch TAC estimates for the various species and rivers. The results of this meeting are summarized in: **Pacific Salmon Commission Transboundary Technical Committee. 2002.** ***Salmon Management and Enhancement Plans for the Stikine, Taku and Alsek Rivers, 2002. Report TCTR 02-1.***

Run reconstruction analyses are conducted on the sockeye salmon *Oncorhynchus nerka* runs to the three rivers for the purpose of evaluating the stocks and the fisheries managed for these stocks. No estimates of marine catch are made for Alaskan fisheries outside of District 106 and 108 for Stikine River stocks, District 111 for Taku River stocks and Subdistrict 182-30 & 31 for Alsek River stocks.

STIKINE RIVER

Stikine River salmon are harvested by U.S. commercial gillnet fisheries in Alaskan Districts 106 and 108, by Canadian commercial gillnet fisheries located in the lower and upper Stikine River, and by a Canadian aboriginal fishery in the upper portion of the river (Figure 1). In addition, a Canadian terminal area fishery is operated in the lower Tuya River and/or at Tahltan Lake when escapements are estimated to be excess to spawning requirements (ESSR). A small sport fishery also exists in the Canadian sections of the Stikine River drainage. In 1995, a United States personal use fishery was established in the lower Stikine River; no catches were reported in this fishery in 1995 through 2000, approximately 30 sockeye salmon were harvested in 2001, and the personal use fishery on the Stikine River was not open in 2002. Additional catches of unknown quantity are taken in U.S. troll and seine fisheries and in sport fisheries near Wrangell and Petersburg. In 1996, the spring experimental troll area in the District 110 portion of Frederick Sound was expanded to target hatchery Chinook salmon *O. tshawytscha*; four previous areas were combined into one large area that also included previously unopened waters. This area was the same in 2002. In 1993 the spring experimental troll fishery near Wrangell was expanded to include two new areas in portions of District 106 and 108 to target hatchery Chinook salmon. In 1998 an additional area was included in a portion of District 108. In 2002 this area was excluded and another small portion of District 108 was included in the experimental fishery.

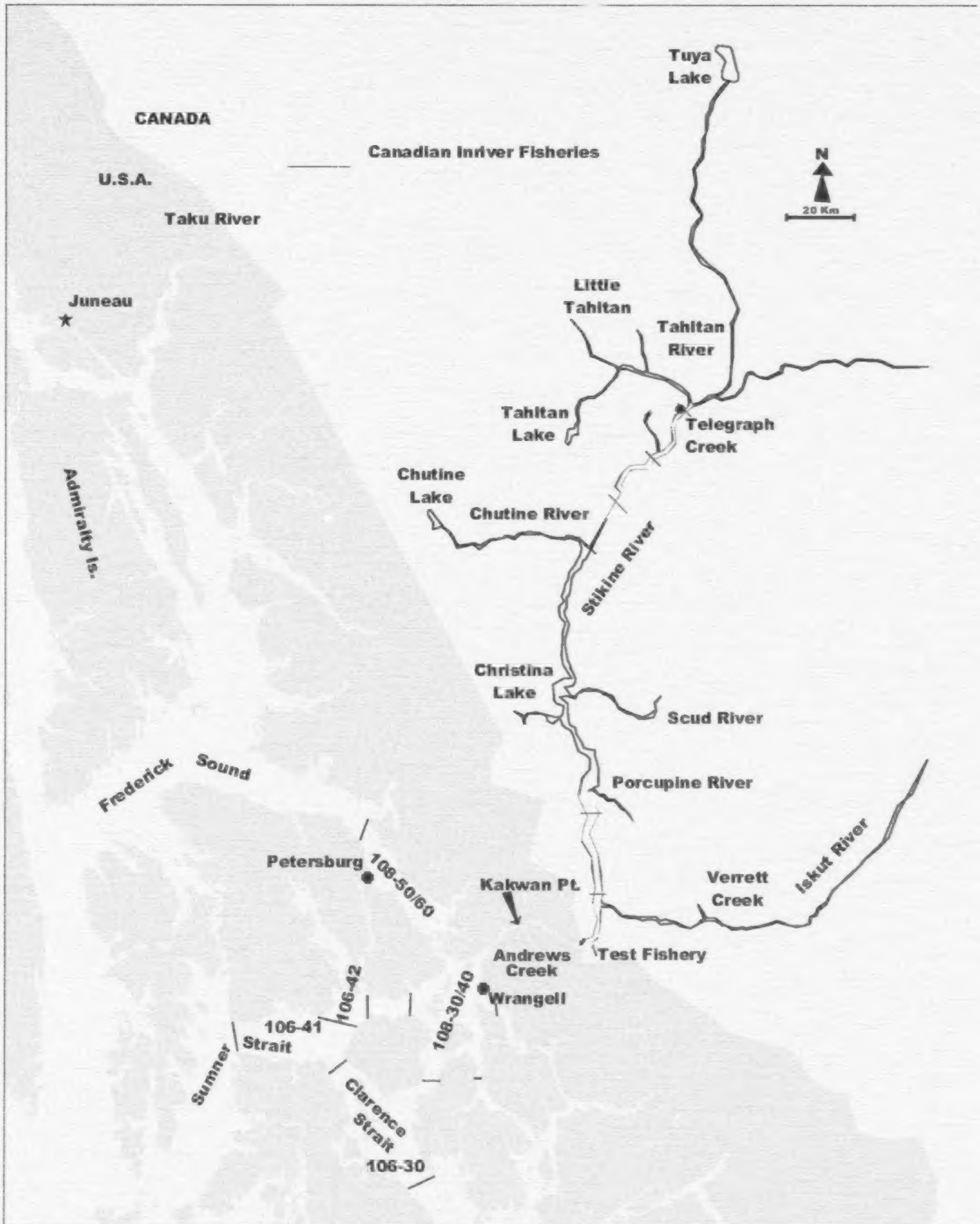

Figure 1. The Stikine River and principal U.S. and Canadian fishing areas.

Harvest Regulations and the Joint Management Model

Negotiations between Canada and the United States to replace expired portions of Annex IV, Chapter 1 of the Pacific Salmon Treaty resulted in the following arrangements for Stikine River salmon which are expected to be in place for the 1999 to 2008 period:

1. General:

The Parties shall improve procedures for coordinated or cooperative management of the fisheries on transboundary river stocks. To this end, the Parties affirm their intent to develop and implement abundance-based management regimes for transboundary Chinook, sockeye and coho *O. kisutch* salmon no later than May 1, 2004.

2. Sockeye salmon:

(i) Assessment of the annual run of Stikine River sockeye salmon shall be made as follows:

a. a preseason forecast of the Stikine River sockeye salmon run will be made by the Committee prior to April 1 of each year. This forecast may be modified by the Committee prior to the opening of the fishing season;

b. inseason estimates of the Stikine River sockeye salmon run and the Total Allowable Catch (TAC) shall be made under the guidelines of an agreed Stikine Management Plan and using a forecast model developed by the Committee. Both U.S. and Canadian fishing patterns shall be based on current weekly estimates of the TAC. At the beginning of the season and up to an agreed date, the weekly estimates of the TAC shall be determined from the pre-season forecast of the run strength. After that date, the TAC shall be determined from the inseason forecast model;

c. modifications to the Stikine Management Plan and forecast model may be made prior to June 1 of each year by agreement of both Parties. Failure to reach agreement in modifications shall result in use of the model and parameters used in the previous year; and

d. estimates of the TAC may be adjusted inseason only by concurrence of both Parties' respective managers. Reasons for such adjustments must be provided to the Committee.

(ii) The Parties desire to maximize the harvest of planted Tahltan/Tuya sockeye salmon in their existing fisheries while considering the conservation needs of wild salmon runs. The Parties agree to manage the runs of Stikine River sockeye salmon to ensure that each country obtains 50% of the TAC in their existing fisheries. Canada will endeavor to harvest all fish surplus to escapement and broodstock needs returning to the Tuya and Tahltan Lake systems.

(iii) The Parties agree to continue the existing joint enhancement programs designed to produce annually 100,000 returning sockeye salmon.

(2) Coho salmon:

(i) Consistent with paragraph 1 above, the Parties agree to develop and implement an abundance-based approach to managing coho salmon on the Stikine River. Assessment programs need to be further developed before a MSY escapement goal can be established.

(ii) In the interim, the United States' management intent is to ensure that sufficient coho salmon enter the Canadian section of the Stikine River to meet the agreed spawning objective, plus an annual Canadian catch of 4,000 coho salmon in a directed coho salmon fishery.

(3) Chinook salmon:

(i) Both Parties shall take the appropriate management action to ensure that the necessary escapement goals for Chinook salmon bound for the Canadian portions of the Stikine River are achieved.

(ii) The Parties agree that new fisheries on Stikine River Chinook salmon will not be developed without the consent of both Parties. Consistent with paragraph 2, management of new directed fisheries will be abundance-based through an approach to be developed by the Committee. The Parties agree to implement assessment programs in support of the development of an abundance-based management regime.

(iii) The Parties shall review an appropriate MSY escapement goal for Stikine River Chinook salmon by May 1999 and establish a new goal as soon as practicable thereafter.

As in most previous years, the Transboundary Technical Committee (TTC) met prior to the season to update joint management and enhancement plans, develop run forecasts and determine new parameters for input into the inseason run forecast model, referred to as the Stikine Management Model (SMM). The model was upgraded to provide inseason forecasts of the total Stikine River sockeye salmon run as well as the following components of the run: the Tahltan stock (wild and planted combined); the planted Tuya stock; and the mainstem stocks. The model for 2002 was based on catch per unit effort (CPUE) data from 1985 to 2001 from District 106 and the Canadian commercial fishery in the lower river and from 1986 to 2001 from the lower Stikine River test fishery. Linear regression was used to predict run size from cumulative CPUE for each week of the fisheries beginning in week 25 for District 106 and week 26 for the inriver fisheries. As in 1999-2001, the intercept was forced to be zero in order to correct for a tendency to overestimate the run size in the early weeks during years of low abundance. In 2002 the inriver test fishery was used as the primary inseason index of inriver run strength. Calculations were also made for the lower Stikine River commercial CPUE, which excluded catch and effort data from the Flood Glacier area, i.e. the new area introduced in 1997 and fished through the 2000 season. In addition, the annual weekly CPUE values for 1994 through 2000 were decreased by a factor of 0.75 for the extra gear allowed in the commercial fishery during that period. This made the historical CPUE data for that period more comparable with the 2002 fishing season and the pre-1994 era.

In 2002, the preseason forecasts were used during statistical weeks 25 (June 16 – 22) through 27 (June 30 – July 06). After week 27, inseason forecasts of total run size and TAC, produced by the SMM and based on catch-per-unit-effort (CPUE) data, were used to assist in determining weekly fishing plans (Table 1). The weekly inputs to the model included: the catch, effort and stock composition (proportion Tahltan/Tuya from egg diameters, proportion planted Tuya from thermal mark analyses of otoliths) in the Canadian lower river test and commercial fisheries; the upper river catch in the aboriginal fishery (AF) and upper river commercial fishery; the catch, effort and assumed stock composition in Subdistrict 106-41 (Sumner Strait); and, the catch and assumed stock composition in District 108 and Subdistrict 106-30 (Clarence Strait). Preliminary results of thermal mark analyses were available inseason for the marine and lower river fisheries to account for Tuya production in the model and reduce the risk of over-estimating the TAC of Tahltan sockeye salmon, which was expected to be below average in 2002.

Table 1. Weekly forecasts of run size and total allowable catch for Stikine River sockeye salmon as estimated inseason by the Stikine Management Model, 2002.

Stat.	Start	Forecast	TAC			Cumulative Catches [a]	
Week	Date	Run Size	Total	U.S.	Canada	U.S.	Canada
Model runs generated by Canada							
26	23-Jun	80,000	10,900	5,450	5,450	1,536	1,037
27	30-Jun	80,000	10,900	5,450	5,450	3,333	2,822
28	07 -July	131,804	63061	31,530	31,530	5,190	5,095
29	14-Jul	124,007	52,622	26,311	26,311	5,894	9,952
30	21-Jul	131,866	56,853	28,426	28,426	5,910	10,445
31	28-Jul	122,463	45,043	22,522	22,522	6,476	17,513
32	04-Aug	111,146	31,780	15890	15890	6,633	17,824
33	11-Aug	111,566	31,789	15,894	15,894	6,800	17,900
Model runs generated by the U.S.							
25	16-Jun	79,600	9,783	4,892	4,892	758	0
26	23-Jun	79,600	9,783	4,892	4,892	1,536	1,037
27	30-Jun	79,600	9,783	4,892	4,892	3,530	2,847
28	7-Jul	135,346	69,196	34,598	34,598	5,134	4,079
29	14-Jul	119,803	49,494	24,747	24,747	5,826	5,899
30	21-Jul	128,137	59,287	29,643	29,643	6,180	13,745
31	28-Jul	127,794	53,698	26,849	26,849	6,639	16,882
32	4-Aug	117,034	43,755	21,878	21,878	6,787	17,193
33	11-Aug	111,586	37,748	18,874	18,874		
Postseason estimate (from Table 2).							
		79,329					

[a] does not include test fishery catches

Initially, average stock proportions in District 106 and 108 catches, from historical postseason scale pattern analysis (SPA), were assumed for weekly catches; the averages used each week depended upon whether the run was judged to be below average, average, or above average. The Tuya and planted Tahltan stock proportions were subsequently adjusted inseason based on the analysis of otolith samples collected from Districts 106 and 108 sockeye salmon harvests. The weekly estimate of Tuya fish in District 106-41 was added to the historical proportion of Tahltan fish in the SMM since this stock was not present in the historical database. No adjustments were made in District 108, which was not open during the sockeye salmon fishery.

The preseason forecast for the Stikine River sockeye salmon run was 79,600 fish (Table 1), which indicated a run size below average (Appendix B.28). The forecast included approximately 20,600 natural Tahltan sockeye salmon (26%), 5,900 planted Tahltan fish (7%), 15,000 planted Tuya sockeye salmon (19%), and 38,400 mainstem fish (48%). Canadian inseason predictions of total run ranged from 111,146 to 131,866 sockeye salmon; U.S. forecasts ranged from 111,586 to 135,346 sockeye salmon (Table 1). All forecasts indicated a below average run. Because run size generated from the inriver test fishery data proved more accurate than that generated from the commercial fishery data, only the forecasts derived from inriver test fishery data were used in 2002. As in 2000 and 2001, the preseason forecast was more accurate than inseason forecasts. U.S. and Canadian weekly predictions differed due to different catch data input used for the updates.

Inseason management was influenced significantly by forecasts derived from the SMM, which was updated and refined by the TTC prior to the season. The model is based on the historical relationship between cumulative CPUE and run size and provides three sets of independently generated forecasts for the Tahltan, Tuya, and mainstem runs: one set based on US District 106 CPUE, another based on Canadian inriver commercial CPUE and the last based on Canadian test fishery CPUE. Each CPUE and run size data set is significantly correlated. The inriver test fishery CPUE was the forecast used inseason because it has the most consistent historical database of the three data sets. Unfortunately, the inseason forecasts overestimated the total abundance of Stikine River sockeye salmon when compared with the postseason estimate.

The postseason estimates of run size and TAC are well below the predictions that were used inseason for management. For example, the final inseason forecast generated by the SMM indicated a run of approximately 111,600 sockeye salmon and a TAC of 31,800 fish (Table 1), while the postseason estimate of 79,329 fish had a TAC of 8,500 sockeye salmon. Run size and TAC projections from the SMM progressively decreased after statistical week 30. The run forecasts during the peak of the fisheries (weeks 27 through to 29) were well above the postseason run estimate and indicated that a surplus TAC was available to harvest.

U.S. Fisheries

The 2002 gillnet harvest in District 106 included 446 Chinook; 56,135 sockeye; 226,560 coho; 82,951 pink *O. gorbuscha*, and 112,541 chum salmon *O. keta* (Appendices A.1 and B.1). The harvests of Chinook, sockeye, pink, and chum salmon were below average, while the coho salmon harvest was above average (Appendix B.1). An estimated 161 fish (36.1%) of the District 106 Chinook salmon harvest were of Alaska hatchery origin (Appendix A.1). The postseason estimate of the contribution of Stikine River sockeye salmon to the District 106 total harvest was 8,075 fish or 14.4% of the harvest (Appendices A.2 and B.2). District 106 coho salmon harvest was above average (Appendices A.1 and B.1). An estimated 78,485 fish were of Alaska hatchery origin, 34.6% of the total District 106 coho salmon harvest. The chum and pink salmon harvest was below average. The District 106 drift gillnet fishery was open for 47 days from June 16 through October 15 and was above average. Sections 6-A, 6-B, and 6-C were open simultaneously each week throughout the season. Fishing effort in number of vessels fishing in District 106 was below the average for the most of the season (Appendix B.1). The greatest effort in vessels fishing was 83 boats in week 36 while the greatest number of boat days, 320, occurred in week 37 (Appendix A.1). The total season effort was below average with 2,684 boat (Appendix B.1).

Subdistricts 106-41/42 harvested an estimated 6,615 Stikine River sockeye salmon, 16.9% of the total sockeye salmon harvested in the subdistricts (Appendices A.4 and B.4). An estimated harvest of 1,460 Stikine River sockeye salmon Subdistrict 106-30 (Appendices A.6 and B.6) represented 8.5% of the total sockeye salmon harvest in that subdistrict.

In District 108, 25 Chinook, 208 sockeye, 21,131 coho, 4,578 pink, and 2,017 chum salmon were harvested (Appendices A.7 and B.7). The harvest of Stikine River sockeye salmon in the District 108 fishery was estimated to be one fish (Appendices A.8 and B.8). The District 108 fishery started on July 28 and ran through October 15. The 35 days the district was open is below average (Appendices A.7 and B.7). District 108 was not opened until week 31 due to an expected weak run of Tahltan Lake sockeye salmon. As a result of the delayed opening of the fishery, comparisons of 2002 harvests to averages are meaningless. An estimated 6.9% of the coho salmon harvest (1,449 fish) was of Alaskan hatchery origin. The fishing effort in number of vessels fishing in District 108 was below average most openings except during week 37 (early September). The season effort of 323 boat-days in District 108 was below average (Appendix B.7). Once again the conservative fishing time in District 108 was in place to restrict access to those areas closest to the Stikine River (allowing almost all Tahltan sockeye salmon additional time and protection to pass through this area).

The District 108 test fishery did not take place in 2002 (Appendix A.9). Annual harvests and stock compositions from 1984 to 2000 for District 6 and 8 test fishery are provided in (Appendices B.9-B.11).

Harvests in Districts 106 and 108 consist of species of mixed stock origin; the contribution of Stikine River stocks is estimated only for sockeye salmon. The proportions of Stikine River sockeye salmon in Districts 106 and 108 harvests were estimated inseason using both the historical proportions of each stock and the inseason proportions of thermally marked fish from fry plants to Tahltan and Tuya Lakes. Analysis of scale patterns combined with thermal mark analysis was used postseason to estimate the stock composition of sockeye salmon harvests in Districts 106 and 108.

The District 106 gillnet season began 12:00 noon on Sunday, June 16 (statistical week 25) for a 48 hour period. This opening is normally two days and any decision to extend fishing is based on fishery harvest rates estimated by management biologists on site in the fishery. District 108 was closed for this opening to limit harvest of the Tahltan sockeye salmon stock. Due to the high potential for a weak Tahltan sockeye salmon run and the desired escapement of 24,000 fish to that system, no openings were expected in District 108 and no fishery extensions were expected in District 106 for the first 4–5 weeks of the fishing season. The estimated sockeye salmon CPUE in District 106 for statistical week 25 was below the average for this week (Appendix A.2). However, the fishery was open in week 25 in only four years during the last ten years. Based on the fishery survey, an estimated 31 boats were fishing in Sumner Strait (106-41) and 10 boats were fishing in Clarence Strait (106-30) during this opening. The otolith readings for District 106 for week 25 indicated that the harvest in Sumner Strait had a low proportion of marked Tahltan Lake bound fish (4.5%) and a relatively high proportion of Tuya fish (14.4%). The preseason SMM forecast a total Stikine River TAC of 9,783 fish and a Tahltan TAC of 1,901 (Table 2). This would allow the U.S. fisheries to harvest a total of 4,892 Stikine River fish, including 950 Tahltan fish. The preseason forecast was used for weeks 25-27 and the inriver test fishery CPUE data was used for the remainder of the sockeye salmon season.

During statistical week 26 (June 24-June 30) there were 44 boats fishing in Sumner Strait and 7 boats fishing in Clarence Strait. The sockeye salmon CPUE in District 106 was below average for this week therefore there was no fishery extension in District 106 and District 108 remained closed.

During statistical week 27 (June 30-July 6) there were 50 boats fishing in Sumner Strait and 13 boats fishing in Clarence Strait. The District 106 sockeye salmon harvest and CPUE were substantially higher this week than in weeks 25 and 26 but still below average (Appendix A.2). District 108 remained closed and no extension was given in District 106 for this opening. This week the SMM switched from the preseason forecast to a forecast based on the Canadian inriver test fishery CPUE for the week 28 projections. The inseason otolith readings for subdistrict 106-41/42 for week 27 indicated that 1.4% and 15.9% of the catch was comprised of thermally marked Tahltan and Tuya fish, respectively. The estimated U.S. harvest by the end of this week was 1,429 Tahltan sockeye salmon, while the SMM projected a U.S. TAC of 12,741 Tahltan sockeye salmon.

During statistical week 28 (July 7-July 13) there were 75 boats fishing in District 106 (33 in Clarence Strait and 42 in Sumner Strait). Surveys on the fishing grounds showed that the harvest and CPUE for the two-day opening in District 106 were near average for both areas but did not warrant a fishery extension. On average the peak Tahltan abundance occurs in District 106 in week 27; however, the 2002 statistical weeks were earlier than average, therefore week 28 was similar to the statistical week 29 historical averages when the majority of the Tahltan run has passed through the District 106 fishery. The estimated U.S. harvest of Tahltan sockeye salmon was 1,498 fish and the TAC from the SMM was 7,291 Tahltan

Lake sockeye salmon. Despite the large remaining balance of Tahltan TAC management remained conservative to protect local archipelago stocks and to minimize the risk of overharvesting the Tahltan stock given the low preseason forecast.

During statistical week 29 (July 14-July 20), 72 boats fished in District 106. Fishing ground surveys showed that sockeye salmon CPUE for the two-day opening was slightly above average in Clarence and below average in Sumner Straits. The inseason otolith readings for District 106 for week 29 indicated that the marked Tahltan and Tuya fish contributed less than 1.0% of the catch. The SMM run prediction continued to drop and the total CPUE for District 106 was below average. The estimated U.S. Tahltan harvest by the end of this week was 1,955 sockeye salmon and the TAC was 9,965 fish. Again, due to conservation concerns for local stocks and Stikine River fish, District 108 remained closed and there was no extension given in District 106. An enlarged closure around Salmon Bay was implemented to increase sockeye salmon escapement into that lake system.

During statistical week 30 (July 21-July 27) there were 72 boats fishing in District 106. The U.S. catch of Tahltan sockeye salmon was estimated at 2,077 fish with a TAC from the SMM of 3,295 Tahltan fish. Based on historical migratory timing information and the low abundance of thermally marked Tahltan and Tuya fish in the prior week it was assumed that these stocks were through the fishery. The CPUE for sockeye salmon in week 30 was well below average therefore District 106 was not open for an additional day and District 108 remained closed (Appendix A.2).

During statistical week 31 (July 28-August 3) District 108 was opened for the first time in the 2002-fishing season (Appendix A.7). A total of 61 boats fished in District 106 and 5 boats fished in District 108 during the two-day opening and the CPUE for sockeye salmon remained below average for both districts. This was the final week of directed sockeye salmon fishing in Districts 106 and 108. The U.S. catch of mainstem Stikine River sockeye salmon was estimated to be 1,461 fish with a TAC of 16,590. Despite the large remaining TAC for the Stikine River mainstem fish, fishery openings were not extended due to concern for the local island sockeye salmon stocks that migrate during this period.

During statistical week 32 (August 4-August 10) both Districts 106 and 108 were managed for pink salmon. Typically this switch from sockeye salmon to pink salmon management occurs during statistical week 33; however, this year's statistical weeks were shifted almost a week earlier than most years. Both districts were open for two days. All of District 108 was open with the exception of the Petersburg Creek closure in Fredrick Sound and section D of District 106 was closed from this week through statistical week 36. Pink salmon harvests in both districts are not always a true reflection of abundance because low prices for pink salmon and catches of other more valuable species may affect the fishing patterns and methods. During the 2002 season, the fishing effort was approximately half of average in most weeks. High salmon catches in other districts, as well as high abundance of Dungeness crab, resulted in reduced effort in Districts 106 and 108. The total pink salmon harvest was substantially below average (Appendices B.4 and B.7). In week 33 the fisheries in both districts were extended an additional day and openings were set for at least three days through week 41.

Coho salmon management typically commences in late August or early September in both the Districts 106 and 108 gillnet fisheries. During statistical week 35 (August 25 – August 31) the management emphasis changed from pink to coho salmon. Prior to the change to coho salmon management the fishery harvested 97,300 coho salmon, approximately 43% of the total District 106 coho salmon catch. The harvest of wild coho salmon stocks prior to week 36 was well above average despite the low effort. Both districts were open three or four days per week for weeks 36 through week 41 (September 01–October 12) due to the projections of extremely high coho salmon escapements throughout the region and above average CPUE for wild coho salmon stocks. The highest harvest of coho salmon occurred during week

36. The fishery was open for four days in both weeks 37 and 38. Fishing time was cut back three days for weeks 39 through 41. The season ended with a final two-day opening during week 42 (October 7-13).

Canadian Fisheries

Catches from the combined Canadian commercial and aboriginal gillnet fisheries in the Stikine River in 2002 included; 1,362 large Chinook, 578 jack Chinook, 17,294 sockeye, 82 coho, 19 pink, and 33 chum salmon, (Appendices A.10 and A.13). In addition to these catches, 501 sockeye salmon were taken in an ESSR harvest in the Tuya River (Table 2 and Appendix B.18). The harvest of all species, except jack Chinook salmon, was below average (Appendix B.17). The harvest of 1,362 large Chinook salmon was below average, while the harvest of jack Chinook salmon was above average. The sockeye salmon catch was below average. The estimate of the total contribution of sockeye salmon from the Canada/U.S. fry-planting program to the combined Canadian aboriginal and commercial fisheries is 6,153 fish; 35.6% of the catch (Table 2). The coho salmon catch was the lowest on record with 82 fish harvested (Appendix B.17).

Three test fisheries (Chinook, sockeye and coho salmon) were conducted in the lower Stikine River in 2002, immediately upstream from the Canada/U.S. border. Combined test fishery catches included: 1,656 large Chinook, 323 jack Chinook, 4,412 sockeye, 2,745 coho, 27 pink, and 80 chum salmon (Appendix A.15, Appendix B.19). The objectives of the Chinook, sockeye, and coho salmon test fisheries were to obtain data for mark-recapture programs and to collect run timing information. Additional objectives of the sockeye salmon test fishery were similar to those in previous years: to provide inseason catch, stock ID and effort data for input into the SMM to forecast the inriver run size; and, to determine migratory timing and stock composition of the sockeye salmon run for use in the postseason estimations of the inriver sockeye and coho salmon run sizes.

Lower Stikine River Commercial Fishery

Canadian commercial fishery in the lower Stikine River harvested 433 large Chinook, 209 jack Chinook, 10,420 sockeye, 82 coho, 19 pink, and 33 chum salmon in 2002 (Appendix A.10). The catches of salmon species were below average. The stock composition estimates for the lower river catch (Table 2) are 776 planted Tahltan fish, 7.4% of the sockeye salmon catch; 2,559 wild Tahltan fish, 24.6% of the catch; 5,750 mainstem fish, 55.2% of the catch; and 1,335 planted Tuya fish, 12.8% of the catch (Appendix A.11 and B.13).

Weekly guideline harvests, based on SMM forecasts of the total allowable catch (TAC) apportioned by average run timing and domestic and international allocation agreements, were developed each week to guide management decisions during the sockeye salmon season. Particular attention was directed at the inriver run and escapement forecasts of the various stock groupings. Management through statistical week 31 was focused primarily on the Tahltan Lake sockeye salmon stock after which it switched to mainstem sockeye salmon stocks through the end of August, and then to coho salmon. The Tahltan Lake sockeye salmon stock was of particular concern given the preseason expectation of a below average run.

The fishery commenced at noon on Sunday, June 23 (statistical week 26) for a scheduled opening of one day. Fishing time was kept to 24 hours due to the concern of a weak run of Tahltan Lake sockeye salmon indicated by the preseason expectations.

Sockeye salmon catches increased in week 27 (June 30-July 6) and the commercial CPUE for the Tahltan stock increased to 92, which was average. As in week 26, the fishery opening was limited to one day because of concern for a potentially weak Tahltan sockeye salmon run. The SMM forecast for week 28, based on the inriver test fishery CPUE indicated a TAC of 19,949 Tahltan Lake sockeye salmon, which was to be split

50/50 between Canada and the U.S. The estimated cumulative Tahltan Lake sockeye salmon catch through week 27 was 1,500 fish, which was slightly above the guideline catch of 1,415 fish for this week.

In statistical week 28 (July 7-July 13), the fishery was again limited to one day due to the anticipated weak run of Tahltan sockeye salmon and the low CPUE for this stock. The Tahltan sockeye salmon CPUE in week 28 was 74; below average.

Based on the Tahltan run projections for week 29, which indicated a decrease for this stock, the fishery was restricted to one day. The CPUE for Tahltan sockeye salmon was half the average and the fishery was not extended. An above average CPUE for the mainstem sockeye salmon stock was observed in statistical week 29, while a below average CPUE for Tuya sockeye salmon was recorded.

By week 30 (July 21-July 27) an historical average of 80% of the Tahltan sockeye salmon run was past the fishery and inseason analysis of egg diameters in 2002 indicated that less than 15% of the catch was comprised of Tahltan and Tuya fish. Management focus shifted to the mainstem sockeye salmon run and the fishery was opened on two days to harvest an apparent above average run of this stock. Although the CPUE for mainstem fish was more than 60% above average the fishery was limited to two days in order to protect the few remaining Tahltan sockeye salmon.

In week 31 (July 28 to Aug 03) the fishery was opened for two days. The CPUE for mainstem sockeye salmon was relatively strong and analysis of egg diameters and thermal marks indicated that 98% of the harvest was composed of the mainstem stock. The fishery was extended for an additional two days in an attempt to harvest the available TAC for this stock. The CPUE of the mainstem sockeye salmon stock dropped as the fishery progressed and after four days was 29% below average and the fishery was closed.

Table 2. Run reconstruction for Stikine River sockeye salmon, 2002.

					Tahltan		Total	All	All
	Tahltan	Mainstem	Total	Tuya	Wild	Hatchery	Stikine	Planted	Wild
Escapement[a]	17,740	27,154	44,894	4,654	13,023	4,717	49,547	9,370	40,177
ESSR Catch[b]				501			501	501	0
Biological Samples	400		400		285	115	400	115	285
Broodstock	3,051		3,051		1,753	1,298	3,051	1,298	1,753
Natural Spawning	14,289	27,154	41,443	1,917	10,490	3,799	43,360	5,716	37,644
Excess[c]			0	2,236			2,236	2,236	
Canadian Harvest									
Indian Food	2,697	538	3,235	3,155	2,092	605	6,390	3,760	2,630
Upper Commercial	182	62	244	240	140	42	484	282	202
Lower Commercial	3,335	5,750	9,085	1,335	2,559	776	10,420	2,111	8,309
Total	6,214	6,350	12,564	4,730	4,791	1,423	17,294	6,153	11,141
% Harvest	75.1%	76.4%	75.8%	53.8%					
Test Fishery Catch	1,726	1,992	3,718	694	1,324	402	4,412	1,096	3,316
Inriver Run	25,680	35,496	61,176	10,078	19,139	6,541	71,253	16,619	54,635
U.S. Harvest[a]									
106-41&42	1,896	1,325	3,221	3,394	1,216	680	6,615	4,074	2,541
106-30	159	637	796	664	159	0	1,460	664	796
108	0	1	1	0	0	0	1	0	1
Total	2,055	1,963	4,018	4,058	1,375	680	8,076	4,738	3,338
% Harvest	24.9%	23.6%	24.2%	46.2%					
Test Fishery Catch	0	0	0	0	0	0	0	0	0
Total Run	27,735	37,459	65,194	14,136	20,514	7,221	79,329	21,357	57,973
Escapement Goal	24,000	30,000	54,000	0					
Terminal Excess[d]				13,112					
Total TAC	2,009	5,467	7,476	1,024			8,500		
Total Harvest[e]	9,995	10,305	20,300	9,983			30,283	12,488	17,795
Canada TAC	1,005	2,733	3,738	512			4,250		
Actual Catch[f,g]	6,214	6,350	12,564	4,730			17,294	6,153	11,141
% of total TAC	618.6%	232.3%	336.1%				406.9%		
U.S. TAC	1,005	2,733	3,738	512			4,250		
Actual Catch [f,g]	2,055	1,963	4,018	4,058			8,076	4,738	3,338
% of total TAC	204.6%	71.8%	107.5%				190.0%		

[a] Escapement into terminal and spawning areas from traditional fisheries.

[b] Catch allowed in terminal areas under the Excess Salmon to Spawning Requirement license.

[c] Fish returning to the Tuya system are not able to access the lake where they originated due to velocity barriers.

[d] The number of Tuya fish that should be passed through traditional fisheries in order to harvest the Tuya stock at the same rate as the Tahltan stock to ensure adequate spawning escapement for Tahltan fish.

[e] Includes traditional, ESSR, and test fishery catches.

[f] Does not include ESSR or test fishery catches.

[g] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than in the listed fisheries.

For the remainder of the fishery (weeks 32 to 34) weekly openings were liberal (four-day openings) to harvest the surplus TAC of mainstem sockeye salmon. The fishing effort, however, was light with some fishers electing not to fish during the majority of the available open days.

The sockeye salmon run timing appeared earlier than average based on the sockeye salmon CPUE in the lower river commercial fishery. The Stikine River sockeye salmon run peaked in week 27, two weeks earlier than the average peak in week 29. Tahltan and Tuya stocks peaked in week 27, two weeks early, while the mainstem run peaked in week 30, one week ahead of average timing for this stock conglomerate.

As in recent years, Excess Salmon to Spawning Requirements (ESSR) fishing activities again focused on the lower Tuya River to harvest fish returning from the fry-planting program. Marketing difficulties limited the Tuya ESSR fishery this year. However, the ESSR fishery was used to assist in a large-scale live fish capture project on the Tuya River which resulted in approximately 2,000 sockeye salmon being transported upstream above the lower Tuya velocity barriers. A total of 501 sockeye salmon were harvested in the ESSR fishery and were distributed to the Tahltan First Nations elders (Table 2).

Out of 18 licenses available for the lower river commercial fishery, 11 licenses were issued in 2002 with a maximum of 11 licenses being active in any one week (Appendix A.10). The total effort was 169 permit-days; below average (Appendix B.12). Gear was restricted to one drift or set gill net and the commercial fishing zone was reduced from the 1997-2000 zone defined by the Canada/US border upstream to the mouth of Flood Creek to an area bounded by the Canada/US border to the mouth of the Porcupine River (the pre-1997 fishing zone). These actions were taken to conserve the expected weak run of Tahltan Lake sockeye salmon.

Upper Stikine River Commercial Fishery

A small commercial fishery has existed near Telegraph Creek on the upper Stikine River since 1975. Two large Chinook and three jack Chinook salmon were harvested which were below average. A total of 484 sockeye salmon was caught, which was below average (Appendices A.12 and B.14). The fishing effort was below average with two fishers fishing one to two days per week. A total of 9 days were fished and the total effort was 12 permit-days.

Aboriginal Fishery

The Stikine River aboriginal fishery, which is located near Telegraph Creek, harvested 927 large Chinook, 366 jack Chinook, and 6,390 sockeye salmon; all catches were above average (Appendices A.13 and B.15). As in past years, fishing times were not restricted in this fishery.

Escapement

Sockeye salmon

A total of 17,740 sockeye salmon were counted through the Tahltan Lake weir in 2002; below average, but was close to the lower end of the management goal range of 18,000 to 30,000 sockeye salmon (Appendices A.17 and B.22). An estimated 3,799 fish (21.4%) originated from the fry-planting program, close to the 38.5% contribution of smolts observed in 1999, the principal cycle year. The estimate of planted fish in 2002 was based on the proportion of thermal marked otoliths from a sample of 400 sockeye salmon sacrificed at the weir for stock composition analysis (Table 2). A total of 3,051 sockeye salmon were collected for broodstock for the fry-planting project and 400 fish were collected for biological samples, which left a spawning escapement of 14,289 fish. The spawning escapements for the mainstem and the Tuya Lake stock groups are estimated indirectly by computing the ratio of Tahltan to mainstem and Tuya components in the total inriver sockeye salmon run. Stock identification data are collected in the lower river commercial and test fisheries. The ratios of Tahltan: mainstem and Tahltan: Tuya are applied to the estimated inriver Tahltan run size to develop an estimate of the total inriver sockeye salmon run. The escapements are estimated by subtracting the inriver catches from the inriver run estimate. The 2002 escapement estimates are 27,154 mainstem and 4,654 Tuya sockeye salmon. The mainstem sockeye salmon stocks spawn in tributaries and the mainstem of the Stikine River. The estimated mainstem spawning escapement was below average and is within the escapement goal range of 20,000 to 40,000 fish. Aerial survey results indicated a below average escapement of mainstem sockeye salmon with a total combined count of 916 sockeye salmon; below average (Appendix B.23).

The Tuya fish are blocked from entering potential spawning grounds of the Tuya tributary by natural barriers and are targeted in the ESSR fishery, which harvested 501 fish in 2002 (Appendix B.18). An additional 1,917 fish were captured and airlifted over the Tuya barrier (Table 2), of this group, 89 were affixed with radio transmitters and 10 were affixed with acoustic tags. The fate of the remaining 2,237 Tuya fish is unknown. Radio telemetry programs in 1998, 2000, and 2001 indicated fish moved from below the Tuya barrier to the mainstem Stikine River as far down river as the mouths of the Scud and Porcupine Rivers. One fish was located in the Stikine River downstream from the Canada/U.S. boundary. Some Tuya sockeye salmon were found in the Tahltan River. In addition, otolith samples collected in August 2001 from fish spawning in Shakes Creek (an area with no prior report of spawning sockeye salmon, located approximately 50 km downstream from the Tuya River) indicated that all the fish spawning in this area originated from Tuya fry plants.

For the third consecutive year a sockeye salmon mark-recapture program was conducted to develop an alternate abundance-based management regime for Stikine River sockeye salmon. The estimate of the total escapement using a Darroch estimate was 78,378 (SE= 4,711) sockeye salmon (m=1,565, r=297, c=14,832). The sockeye salmon specific escapement based on the mark-recapture study was 18,000 Tahltan, 8,400 Tuya, and 19,300 mainstem sockeye salmon.

Chinook salmon

The 2002 Chinook salmon escapement enumerated at the Little Tahltan weir was 7,476 large fish and 618 jack Chinook salmon (Appendices A.19 and B.25). The escapement of large Chinook salmon in the Little Tahltan River was above the upper limit of the escapement goal range (2,300 to 5,300 fish with a point goal of 3,300 fish). Aerial surveys of the Tahltan River and Beatty Creek have been discontinued. The peak survey count at Andrew Creek was 875 fish, above average, and within the escapement goal range of 650-1,500 fish (Appendix B.26). The aerial survey count for the Little Tahltan River was missed due to bad weather conditions.

A mark-recapture study was conducted again in 2002 and the estimated escapement of large Chinook salmon in the Stikine River is 50,175.

Coho salmon

Aerial surveys indicated an extremely strong run of Stikine River coho salmon. A total of 12,646 coho salmon were observed in 2002; above average (Appendix B.27). For the third consecutive year, a mark-recapture program was conducted to develop an abundance-based management regime for Stikine River coho salmon. This year, an additional set gillnet was deployed at the tagging site in an effort to increase the number of tagged salmon. The estimate of the total escapement using a modified Petersen estimate (m=1,747, r=32, c=2,596) was 139,200 coho salmon, with a range of 98,200 to 195,200 fish. Although the additional net used at the tagging site resulted in a record number of tagged coho salmon, the paucity of recovered fish (marked and unmarked) resulted in the very wide range in the coho salmon escapement estimate. Increased fishing effort (commercial and test fishing grounds) is recommended for future studies. This escapement estimate is above the upper end of the escapement goal range of 30,000 to 50,000 coho salmon.

DFO used test fishery coho and sockeye CPUE to estimate coho salmon—the test fishery cumulative weekly CPUE of coho salmon was the second highest on record (Appendix B.19) and constituted 73% of the cumulative weekly sockeye salmon CPUE, thus indicating the coho salmon run to be approximately 73% of the estimated sockeye salmon run of 81,000 fish or 59,500 coho salmon. Based on these analyses, the total inriver escapement of coho salmon was 56,817 fish.

Sockeye Salmon Run Reconstruction

The postseason estimate of the Stikine River sockeye salmon run size is 79,329 fish, of which 27,735 are of Tahltan Lake origin (wild & planted), 14,136 are of Tuya origin (fry from Tahltan broodstock planted into Tuya Lake), and 37,459 are mainstem stocks (Table 2). These estimates are based on postseason analysis of scale patterns and thermal marks in the U.S. Districts 106 and 108 catches and otolith analysis and egg-diameter stock-composition estimates for inriver catches from the Canadian commercial, aboriginal, ESSR, and test fishery catches; and escapement data. The 2002 total run was below average (Appendix B.28) but almost the same as the preseason forecast of 79,600 sockeye salmon (Table 1).

TAKU RIVER

Taku River salmon are harvested in the U.S. gillnet fishery in the Alaskan District 111, in northern Southeast Alaska seine and troll fisheries, and in the Juneau area sport fishery and inriver personal use fishery (Figure 2). Canadian fisheries for Taku River salmon include a commercial gillnet fishery located in the river near the Canada/U.S. border, an aboriginal fishery, and a sport fishery.

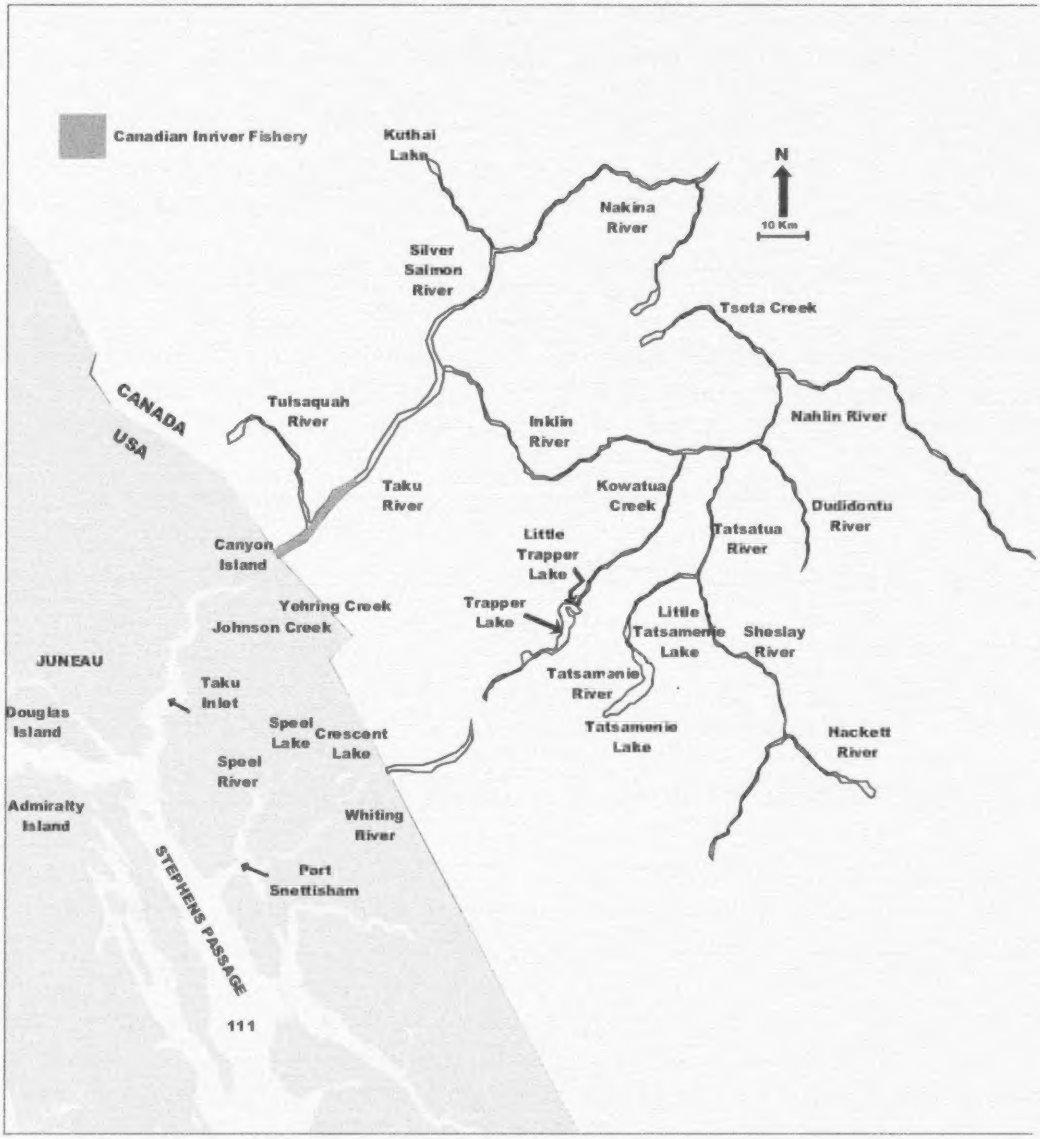

Figure 2. The Taku River and principal U.S. and Canadian fishing areas.

Harvest Regulations

New fishing arrangements were in place in 1999 as a result of negotiations between Canada and the United States of Annex IV, Chapter 1 of the Pacific Salmon Treaty. The arrangements that are expected to apply to the Taku River for the 1999 to 2008 period are as follows:

(1) Sockeye salmon:

(i) Except as noted below, Canada shall harvest no more than 18% of the TAC of the wild sockeye salmon originating in the Canadian portion of the Taku River each year;

(ii) If the projected inriver escapement is greater than 100,000 sockeye salmon, Canada may, in addition, harvest 20% of the projected inriver escapement above 100,000 sockeye salmon;

(iii) The Parties agree to manage the runs of Taku River sockeye salmon to ensure that each country obtains catches in their existing fisheries equivalent to each country's share of wild sockeye salmon and a 50% share of fish originating from Taku River fry plants;

(iv) The Parties agree to continue the existing joint Taku River enhancement program designed to produce annually 100,000 returning sockeye salmon.

(2) Coho salmon:

(i) The Parties agree to develop and implement an abundance-based approach to managing coho salmon on the Taku River no later than May 1, 2004. The Parties commit to developing a revised MSY escapement goal to be implemented no later than May 1, 2004.

(ii) Until a new abundance-based approach is developed, the management intent of the United States is to ensure a minimum above-border inriver run of 38,000 coho salmon, and the following arrangements will apply:

a. no numerical limit on the Taku River coho salmon catch will apply in Canada during the directed sockeye salmon fishery (through statistical week 33);

b. if inseason projections of above-border run size are less than 50,000 coho salmon, a directed Canadian harvest of up to 3,000 coho salmon is allowed for assessment purposes as part of the joint Canada/US Taku River mark-recapture program;

c. if inseason projections of above-border run size exceed 50,000 coho salmon, a directed Canadian harvest of 5,000 coho salmon is allowed;

d. if inseason projections of above-border run size exceed 60,000 coho salmon, a directed Canadian harvest of 7,500 coho salmon is allowed;

e. if inseason projections of above border run size exceed 75,000 coho salmon, a directed Canadian harvest of 10,000 coho salmon is allowed.

(3) Chinook salmon:

(i) Both Parties shall take the appropriate management action to ensure that the necessary escapement goals for Chinook salmon bound for the Canadian portions of the Taku River are achieved.

(ii) The Parties agree that new fisheries on Taku River Chinook salmon will not be developed without the consent of both Parties. Management of new directed fisheries will be abundance-based through an approach to be developed by the Committee no later than May 01, 2004. The Parties agree to implement assessment programs in support of the development of an abundance-based management regime.

(iii) The Parties shall review an appropriate MSY escapement goal for Taku River Chinook salmon by May 1999 and thereafter establish a new goal as soon as practicable.

U.S. Fisheries

The traditional District 111 commercial drift gillnet salmon fishery was open for a total of 61 days from June 16, 2002, through October 15, 2002 (Appendix C.1). The harvest totaled 1,840 Chinook, 178,488 sockeye, 39,823 coho, 77,562 pink, and 231,021 chum salmon. Harvests of Chinook, coho, pink, and chum salmon were below average. The sockeye salmon harvest was above average. Weekly commercial fishery catches and stock composition estimates for these fisheries are provided in Appendices C.1 – C.3 and annual catches from 1960 through 2002 are provided in Appendices D.1 – D.3.

Hatchery stocks contributed significantly to the numbers of both sockeye and chum salmon harvested and minor numbers to the harvest of other species. The 2002 season was the third year of large numbers of adult sockeye salmon returning to the Snettisham Hatchery inside Port Snettisham. These fish contributed to the harvests primarily in Stephens Passage and to the Speel Arm Terminal Harvest Area fishery inside Port Snettisham.

The Chinook salmon harvest of 1,840 fish was below average (Appendix C.1 and D.1). Alaskan hatchery fish contributed 232 fish as estimated by coded wire tag (CWT) analysis; 12.6% of the harvest. The Taku River stock assessment program at Canyon Island estimated the above-border Chinook salmon escapement of 55,044 fish (Appendix C.8). The escapement goal range is from 30,000 to 55,000 Chinook salmon.

The sockeye salmon harvest of 178,488 fish was above average (Appendices C.1 and D.1). Weekly sockeye salmon harvests in District 111 were above average in SW25 through SW29, and again in SW31. However, weekly sockeye salmon harvests dropped to below average during SW30, and again during SW32 through SW42. Weekly sockeye salmon catch-per-unit-effort (CPUE) was a record for SW25, SW28, and SW31. However, weekly sockeye salmon CPUE was lower than average during eleven out of eighteen statistical weeks. Domestic hatchery sockeye salmon stocks started to contribute to the traditional fishery in SW28 and added significant numbers to the harvests in SW29 through SW31. Fishermen targeting on those runs of hatchery sockeye salmon and the Limestone Inlet hatchery chum salmon, increased the amount and percentage of fishing effort that occurred in Stephens Passage. Of the total sockeye salmon harvest, 35.3% occurred in Stephens Passage; above average.

Sockeye salmon from a joint U.S./Canada fry-planting program at Tatsamenie Lake contributed an estimated 660 fish to the fishery (Appendix C.3), or 0.4% of the catch. Contributions of domestic U.S. hatchery sockeye salmon to the Traditional District 111 gillnet fishery totaled 53,440 fish or 29.9% of the harvest (Appendices C.3 and D.2). These were predominately Snettisham Hatchery fish but also included a small number of thermally marked fish from a fry-planting program at Chilkat Lake in upper Lynn Canal. Stock compositions were estimated postseason based on a combined analysis of otoliths, scale pattern, and brain parasite incidence characteristics. The estimated stock composition of the harvest of wild sockeye salmon in the district was 116,711 (65.4%) Taku River fish and 8,337 (4.7%) Port Snettisham stocks (Appendices C.2 and C.3). An additional 61,951 sockeye salmon were harvested in hatchery terminal area fisheries (cost recovery and hatchery access) inside Port Snettisham. The majority of these fish are from hatchery releases but a small portion of wild Speel Lake sockeye salmon stocks are also taken in this fishery.

Coho salmon stocks harvested in District 111 include runs to the Taku River, Port Snettisham, Stephens Passage, and local Juneau area streams as well as Alaskan hatcheries. The coho salmon harvest of 39,823 fish was below average (Appendices C.1 and D.1). Weekly coho salmon harvests were above average during SW29 through SW32, but below average during the remainder of the season. Coho salmon catch-per-unit effort was above average during SW36 through SW38. Alaskan hatchery coho salmon contributed 1,621 fish or 4.1% of the District 111 harvest. For most of the season, weekly estimates of

Taku River coho salmon abundance indicated an above average run size. The postseason inriver run estimate is 223,162 fish (Appendices C.8 and D.12), more than six times the escapement goal of 35,000.

The District 111 pink salmon harvest of 77,562 fish was below average (Appendices C.1 and D.1). The escapement number to the Taku River was not quantified; however, the number of pink salmon passing through the fish wheels at Canyon Island was used as an index of escapement. The fish wheel catch of 5,672 pink salmon was below average, and pink salmon escapement to the Taku River is characterized as below average (Appendix D.15).

The harvest total of 231,021 chum salmon was below average (Appendices C.1 and D.1). The summer chum salmon harvest, 230,092 fish, comprised 99.6% of the seasons harvest. The summer chum salmon run was considered to last through mid-August (SW33) and was comprised mostly of domestic hatchery fish, with small numbers of wild fish contributing to the catches. Chum salmon runs to DIPAC hatcheries in Gastineau Channel and to the DIPAC remote release site at Limestone Inlet contributed a major portion of the harvest but quantitative contribution estimates were not available.As in recent years, a gear restriction of a minimum six-inch mesh size net was employed during the month of July in the fishery openings in Section 11-B south of Circle Point. This allowed harvest of hatchery chum salmon returning to the Limestone Inlet remote release site while limiting harvest rates on wild sockeye salmon stocks. Approximately 47% of the District 111 chum salmon harvest was made in Taku Inlet, 53% in Stephens Passage, and less than 1% inside Port Snettisham. The harvest of 929 fall chum salmon, SW34 and later, was below average (Appendix D.1). Most of these chum salmon are assumed to be wild fish of Taku and Whiting Rivers origin. The escapement to the Taku River was not quantified; however, the 205 fall chum salmon passing through the fish wheels at Canyon Island was used as an index of escapement (Appendix D.15). This was below average. There is a long-term declining trend for fish wheel catches of chum salmon, and the Taku River chum salmon stock may be in a depressed state.

For the 2002 season fishing time was above average (Appendix D.1). The maximum number of boats participating in the fishery in a given week was 141 boats, above average (Appendix C.1). Fishing effort as measured by the total number of boats delivering fish each week times the number of days open to fishing, was 4,101 boat-days for the season, above average (Appendix D.1).

Management actions to conduct the Taku River drift gillnet fishery were limited to imposing restrictions in time, area and gear. In the first week of the season (SW25), which began June 16, three days of fishing time were allowed in both Taku Inlet (Subdistrict 111-32) and Stephens Passage (Subdistrict 111-31). The sockeye salmon harvest in the first week was above average and the second highest on record for the week. The initial inseason estimate of run size was 28,923 fish past Canyon Island, four times the average. Fishing time for SW26 was initially set for three days but was extended an additional day when all data indicated a strong early Kuthai and Trapper Lake sockeye salmon runs to the Taku River. The projected, inriver run size was estimated to be 438,550 sockeye salmon (Table 3). Both Taku Inlet and Stephens Passage were initially opened for four days in SW27. Gillnet mesh restrictions were established south of Circle point to limit harvest of wild Speel and Crescent Lake sockeye salmon. The Taku inriver run size was estimated to be 68,245 fish, a record through SW27. The projected, inriver run-size was 298,411, with a total run-size of 499,610 (Table 3). The District 111 sockeye salmon catch for the week was above average. Approximately 88% of the sockeye salmon harvested during the week came from Taku Inlet, while the remainder was harvested in Stephens Passage. Both Taku Inlet and Stephens Passage were open initially for three days during SW28. Gillnet mesh restrictions were still in place south of Circle Point. No extension was given in Stephens Passage (south of Circle Point) during statistical weeks 28, 29 or 30 to conserve wild Speel and Crescent Lake sockeye salmon. During SW28 the estimated mark-recapture, above-border sockeye salmon run size was 89,035 fish, twice the average of 42,735 fish. The projected total Taku River run was 427,839 sockeye salmon. Sockeye salmon CPUE was 93.7, almost twice the average. Based on these data, Taku Inlet was extended for one day north of the

Point Bishop to Pete's Rock line. Hatchery fish, bound for Port Snettisham, contributed an estimated 24% of the total sockeye salmon catch in Stephens Passage during this week, based on inseason analysis of otolith patterns.

Table 3. U.S. inseason forecasts of total run size, inriver run size, TAC, and the U.S. harvest of Taku River sockeye salmon for 2002.

Stat Week	Inriver Run	Total Run	Total TAC	U.S. TAC	Projected U.S. Catch
26	438,550	755,812	680,812	558,266	317,262
27	298,411	499,610	424,610	348,180	201,199
28	236,882	427,839	352,839	289,328	190,957
29	228,254	398,628	323,628	265,375	170,373
30	198,622	344,539	269,539	221,022	145,917
31	170,848	309,679	234,679	192,437	138,831
32	161,153	289,242	214,242	175,678	128,088
33	150,546	271,617	196,617	161,226	121,071
35	135,043	249,436	174,436	143,037	114,392
Postseason	141,063	258,516	183,516	150,106	117,453

Inseason U.S. TAC calculated as 82% of the total TAC and was not adjusted for change in harvest share when the escapement exceeds 100,000 sockeye salmon.

During SW29, the initial opening was three days in both Taku Inlet and Stephens Passage. Gillnet mesh restrictions were still in place south of Circle Point. The Canyon Island mark-recapture project indicted an above-border run-size of 110,331 sockeye salmon, which was 20,000 fish greater than last year's record at this time. The week's sockeye salmon catch was above average with 73% of the harvest taken in Taku Inlet. Taku Inlet was extended for two days based on the very large Taku River sockeye salmon run. Analysis of otoliths revealed that 25% of the samples processed from Stephens Passage during this week were Snettisham hatchery sockeye salmon.

During SW30, Taku Inlet was opened initially for four days north of the Pete's Rock to Pt. Bishop line. The Kuthai Lake weir has passed 5,548 sockeye salmon by July 22 (Appendix C.11), which was higher than the total season counts for eight of the last ten years. The daily Canyon Island sockeye salmon counts had fallen to below average during the entire week. The District 111 drift gillnet sockeye salmon catch also dropped to below average levels for the first time this season below the average for the week. The drop in this week's sockeye salmon catches was believed to be due to the switch from strong Kuthai and Trapper runs to weak Tatsamenie and mainstem runs. The inriver sockeye salmon run was estimated to be 113,714 fish, which was above average. However, during the week, the projected, total, inriver run size dropped to 198,000 fish, down 30,000 sockeye salmon from the previous week (Table 3). The weekly, District 111 sockeye salmon catch dropped to 15,531 in SW30, down from 34,362 in SW29, with about 50% of the harvest coming from Taku Inlet and 50% coming from Stephens Passage (Appendix C.1). The District 111 coho salmon catch was 3,098 for the week (Appendix C.1) about three times the average.
Both Taku Inlet and Stephens Passage were opened for three days with no extensions during SW31. Gillnet mesh restrictions were still in place south of Circle Point because escapement of Speel Lake sockeye salmon was still below the goal. Historically, by the end of SW31, 89% of the Little Trapper Lake and 30% of the Tatsamenie Lake sockeye salmon have passed Canyon Island. Again, as during the previous week, the daily Canyon Island fish wheel counts for the entire SW31 were below average indicating weak mainstem and Tatsamenie sockeye salmon runs. The weekly, mark-recapture sockeye salmon run size was estimated to be 125,066, above average. The weekly District 111 drift gillnet

sockeye salmon catch total was almost twice the average with about 74% (30,653) being harvested from Stephens Passage where the fleet was targeting hatchery sockeye salmon bound for the Port Snettisham

During SW32, Stephens Passage (south of Circle Point) and District 11-C (south of Midway Island) were initially opened for three days and extended for a fourth day. Gillnet mesh restrictions were removed. Taku Inlet, north of Circle Point, was opened for two days during SW32 due to low numbers seen at the Canyon Island fish wheels during the previous two weeks. The coho salmon catch was average. In week 33 the Taku Inlet opening was again limited to two days while Stephens Passage was opened for three days and extended for a fourth day.

The fall drift gillnet season in District 111 lasted nine weeks, beginning on August 18 in SW34, and lasting until October 15 in SW42. Taku Inlet openings were limited to two days per week in SW 34, 35, & 36, primarily to conserve Taku River fall chum salmon. In the first week of the fall season (SW34), fishing time was set at three days in Stephens Passage (south of Circle Point) and 11-C to allow continued harvest of hatchery sockeye salmon bound for Port Snettisham. Coho salmon catch for the week was about half the average (5,101) for the second week in a row. During SW37, both Taku Inlet and Stephens Passage were opened for three days. Catch rates were about 150 coho salmon per boat per day in Taku Inlet. The weekly coho salmon catch was below average. The mark-recapture inriver abundance estimate was 99,731 coho salmon, which increased by 30,000 fish from the previous week. District 111 was opened for three days during SW38 through SW41 and for two days during SW42. Weekly coho salmon catch dropped considerably from the previous weeks and remained below average for the remainder of the season. The above-border, mark-recapture, inriver abundance estimate for coho salmon increased dramatically from approximately 100,000 coho salmon estimated inriver during SW37 to a final estimate of 187,705 coho salmon inriver during SW41.

Other fisheries in the Juneau area harvested transboundary Taku River salmon stocks in 2002. Personal use permits were used to harvest an estimated 1,289 Taku River sockeye salmon (Appendix D.4). The spring Juneau-area sport fishery harvested an estimated 4,227 Chinook salmon. A number of stocks are known to contribute to the sport fishery, including those from the Taku, Chilkat, and King Salmon rivers, and local hatchery stocks. The major contributor is large, wild mature fish from the Taku River through mid-May and Alaska hatchery fish thereafter. Coded wire tag analysis indicated that 2,111 of these fish were wild fish and that 1,700 (80.5%) were of Taku River origin. The July, Hawk Inlet, shoreline, purse seine fishery operating north of Point Marsden in Chatham Strait did not open this year. A large number of stocks, including the Taku River, contribute to this pink salmon directed fishery. A purse seine test fishery was conducted once during each week in July, with catches totaling 20 Chinook, 884 sockeye, 50 coho, 11,392 pink, and 4,173 chum salmon.

Canadian Fisheries

Taku River commercial fishery harvested 1,561 large Chinook, 291 jack Chinook (fish less than 2.3 kg), 31,053, sockeye, and 3,082 coho salmon, in 2002 (Appendices C.4 and D.5). The catch of large Chinook salmon was below average, while the catch of jack Chinook salmon was above average. The sockeye salmon catch was average. Fish originating from fry plants contributed an estimated 49 fish to the catch, comprising 0.2% of the total sockeye salmon harvest. The catch of coho salmon was below average (Appendix D.5). There were 33 days of fishing; below average. The seasonal fishing effort of 286 boat-days was below average. As in recent years, both set and drift gill netting techniques were used with the majority of the catch taken in drift gillnets. Mesh sizes were restricted to less than 150 mm through July 16 to minimize the incidental catch of Chinook salmon.

In addition to the commercial catches, 37 Chinook, 155 sockeye (102 from Kuthai Lake and 53 from the lower Taku River), and 688 coho salmon were harvested in the aboriginal fishery in 2002 (Appendix D.7).

The postseason run estimate was 252,214 wild sockeye salmon; Canadian catches (excluding test fishery catches) represented 17.6% of the TAC. The run of sockeye salmon originating from fry plants to Tatsamenie Lake was estimated to be 1,019 fish, of which 49 were harvested in the inriver fisheries. This represented 4.8% of the TAC of planted fish.

The postseason abundance estimate of the above-border coho salmon run was 223,162 fish. Accordingly, as per PST provisions, the Canadian allowable catch after week 33 was 10,000 salmon. However, only about 7% of this allocation was taken; all in the aboriginal fishery; since the commercial fishing activity ceased in week 33 due to poor market conditions. (A very small number of coho salmon would also have been harvested in the sport fishery; however, recreational catch figures are not currently available).

Two test fisheries were conducted in the Taku River in 2002. A test fishery was conducted from April 28 through June 12 as part of the Chinook salmon mark-recapture project. This fishery landed 1,311 large Chinook, 355 jack Chinook, 518 sockeye, and 1 coho salmon (Appendix C.7, Appendix D.8). An additional 1,132 large female Chinook salmon were caught and subsequently released. As part of the coho salmon mark-recapture program, a live-release gillnet fishery was conducted for coho salmon from August 21 through October 10 to obtain tag recoveries. Totals of 3,799 coho, 164 sockeye, 11 chum, and 7 pink salmon were caught. All but 3 sockeye and 31 coho salmon were released. Thus the total test fishery removal included 355 jack Chinook, 1,311 large Chinook, 518 sockeye, and 32 coho salmon.

The Canadian estimated preseason forecast was for a total run of 293,000 sockeye salmon, which was the average of a sibling-based forecast (324,000 sockeye salmon) and stock recruitment-based forecast (262,000 sockeye salmon; Table 4). The point estimate was average. The preseason forecast was used to guide weekly management actions for the first week of the season; thereafter, inseason forecasts based on the joint Canada/U.S mark-recapture project were used (Table 4). For coho salmon, the preseason outlook was for an above average run due to good smolt numbers encountered in the 2001 coded-wire tagging program.

Table 4. Canadian inseason forecasts of total run size, total allowable catch (TAC), and spawning escapement of Taku River sockeye salmon, 2002.

Stat. Week	Total Run	TAC	Projected Escapement	Canadian TAC	Inseason Guideline	Actual Catch
25	293,000	218,000	75,000	36,603	2,998	1,869
26	426,185	351,185	313,990	106,011	18,244	7,263
27	317,590	242,590	179,300	59,526	16,236	12,394
28	334,748	259,748	173,487	61,452	22,194	18,062
29	358,784	283,784	171,015	65,284	31,226	24,795
30	356,670	281,670	154,006	61,502	37,238	26,575
31	323,762	248,762	128,096	50,397	36,949	28,403
32	337,671	262,671	124,549	52,191	44,349	30,896
33	323,656	248,655	111,792	47,116	43,259	31,053
34	318,621	243,619	108,180	45,487	43,605	31,053

The commercial fishery commenced at noon on Sunday, June 16 (statistical week 25) for a scheduled opening of two days. Since the incidental catch of Chinook salmon was relatively low and the sockeye salmon CPUE was above average, the fishing period was extended by one day.

As in previous years, cumulative guideline harvests were developed each week to guide weekly management decisions so that: a) the catch was consistent with conservation and Treaty goals; and b) management was responsive to changes in forecasts of abundance, i.e. abundance based. The guidelines were based on current inseason forecasts of the Canadian sockeye salmon TAC (based on mark-recapture estimates) apportioned by historical run timing.

In week 26 (beginning June 23), the fishery was opened on three days. After day 2, the total run forecast was 317,000 fish (assuming the run was one week early) to 594,000 fish if timing was average, and there were 3,809 to 11,954 sockeye salmon remaining as per the guideline harvest. However, an extension was limited to one day because of considerations for the Kuthai stock. In 2001, despite CPUE that was record high in weeks 25 and 26 and above average in week 27, the Kuthai Lake escapement count was only 35% of average. Both the final catch (5,394 sockeye salmon) and CPUE of 159 sockeye were the highest on record for week 26 (Appendix C.4).

In week 27 (beginning June 30) the fishery opened on four days, and no extension was granted (again due to concern for the Kuthai escapement). Assuming the run was one week early, the catch by the end of the third day of the fishery was 468 fish over the weekly guideline harvest; assuming average run timing there was a catch shortfall of 5,986 fish. CPUE for this week was 45% above average.

The week 28 (beginning July 7) fishery was opened for three days and extended by one day due to near record CPUE (182).

The fishery in week 29 (beginning July 14) was opened on four days. It was extended by one day based on about average CPUE, record Canyon Island fish wheel catches (333 sockeye salmon versus an average of 99 on July 15) and a significant surplus showing in the guideline harvest. Only four licenses were fished the last day due to market saturation. At the close of the fishery the guideline harvest surplus ranged from 2,156 to 6,932 for one week early or average run timing, respectively.

Based on the surplus in the guideline harvest and sustained high CPUE in the previous week, an opening of 4 days was posted for week 30 (beginning July 21). Catch rates dropped dramatically this week, CPUE dropped to 59, below average, and the fishery closed as scheduled.

In 2002, as in past years, a preseason agreement to coordinate management focus during statistical weeks 31-33 (July 28-August 17) was supported to increase the escapement of the Tatsamenie stock and provide sufficient broodstock for the Tatsamenie fry-planting program. Consideration would be given to reducing fishing time in Taku Inlet for the U.S. and the inriver fishery for Canada. Fishery extensions would be discussed by the fishery managers of the two countries prior to implementation.

Weeks 31 and 32 (beginning July 28 and August 4, respectively) were opened for three days. Both openings ended as scheduled due to below average fishery and fish wheel CPUE.

Week 33 (beginning August 11) was opened for two days. Effort was low – with four licenses fishing on day one and two on day two; the low effort resulted in the opening being extended to three days. The run forecast dropped considerably this week; however, apparent catch surplus in the guideline harvest was still significant, ranging from 11,812 to 12,553 depending on run timing assumptions.

Due to the low sockeye salmon catches and poor coho salmon prices, week 33 marked the end of the commercial fishery. This was the earliest cessation of fishing since at least 1988. Despite the 2002 fishery being opened for three days in week 35, five days in week 36 and continuously from September 8 (week 37) until October 31, commercial fishing activity did not resume.

The cumulative commercial sockeye salmon CPUE over the season totaled 861 above average and far less than the near record CPUE (1,168 s/f/d) that occurred last year. CPUE in 2002 was record or well above average the first five openings of the fishery, dropping to well below average after week 29. Based on the CPUE, run timing appeared to be earlier than usual in 2002, with an early peak in week 26; on average sockeye salmon CPUE peaks in week 31 or 32.

The cumulative coho salmon CPUE through week 33, of 128 coho/fisher/day (c/f/d), was above average. Based on this, the early part of the coho salmon run was judged to be strong.

Escapement

Chinook salmon

Spawning escapement of Chinook salmon in the Canadian portion of the Taku River drainage was estimated from the joint Canada/U.S. mark-recapture program. Tag application occurred April 28 through July 17 (statistical weeks 17 - 29). Tag recovery in the test and commercial fisheries occurred April 28 through August (statistical weeks 18 - 31), and on the spawning grounds in August and September. The recovery effort consisted of commercial, test, and aboriginal fisheries. The above-border escapement was estimated to be 55,512 large (three-ocean and larger) Chinook salmon (Appendix D. 11). The spawning escapement estimate is 52,409 large fish. The spawning escapement of large Chinook salmon is within the escapement goal range of 30,000 to 55,000 fish.

Aerial surveys of large Chinook salmon to the six escapement index areas annually surveyed by ADF&G were as follows: Nakina 4,066, Kowatua 945, Tatsamenie 1,145, Dudidontu 834, Tseta 192, and Nahlin 1,099 fish (Appendix D.12). The total of 8,281 large Chinook salmon observed was below average.

A carcass weir was again operated by the TRTFN on the Nakina River to obtain tag and age-length-sex data on Chinook salmon. A total of 1,486 carcasses were enumerated at the weir (Appendix C.12).

As in recent years, the Nahlin River weir was not installed due to concerns that it would impede Chinook salmon migration.

Sockeye salmon

Spawning escapement of sockeye salmon in the Canadian portion of the Taku River drainage is estimated from the joint Canada/U.S. mark-recapture program. Counting weirs operated by DFO at Little Trapper and Tatsamenie lakes provide information on the distribution and abundance of discrete spawning stocks within the watershed. An additional sockeye salmon enumeration program was conducted at Kuthai Lake by the TRTFN in 2002.

The joint Canada/U.S. mark-recapture program has been operated annually from 1984 to 2002 to estimate the above-border run size (i.e., border escapement); spawning escapement is then estimated by subtracting the inriver catch. The 2002 estimate of border escapement is 135,233 sockeye salmon and the spawning escapement is estimated at 103,507 fish (Table 5). This spawning escapement was average (Appendix D.9), and was above the escapement goal range of 71,000 to 80,000 sockeye salmon.

Table 5. Taku River sockeye salmon run reconstruction, 2002. Estimates do not include spawning escapements below the U.S./Canada border.

		Taku		Snettisham Stocks		
	Total	Wild	Planted	Total	Wild	Hatchery
Escapement	103,507	103,205	302	Not Available		
Canadian Harvest						
Commercial	31,053	31,004	49			
Food Fishery	155	155	0			
Total	31,208	31,159	49			
Test Fishery Catch	518	517	1			
Above Border Run	135,233	134,881	352			
U.S. Harvest [a]						
District 111	116,711	116,051	660	61,777	8,337	53,440
Personal Use	1,289	1,282	7			
Total	118,000	117,333	667			
Test Fishery Catch	0					
Total Run	253,233	252,214	1,019			
Taku Harvest Plan	Total	Wild	Planted			
Escapement Goal	75,000	75,000	0			
TAC	178,233	177,214	1,019			
Canada						
Base Allowable	32,408	31,898	510			
Surplus Allowable	701	701				
Total	33,110	32,600	510			
Total %	18.6%	18.4%	50.0%			
Actual	31,208	31,159	49			
Actual %	17.5%	17.6%	4.8%			
U.S.						
Total	145,825	145,315	510			
Total %	81.8%	82.0%	50.0%			
Actual	118,000	117,333	667			
Actual %	66.2%	66.2%	65.5%			

[a] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

The sockeye salmon count through the Kuthai Lake weir was 7,799 fish; above average (Appendices C.11 and D.10). A total of 102 of these fish were harvested in the aboriginal food fishery, leaving a spawning escapement of 7,697 fish. The estimated proportion of females was 0.51m based on a live sample of 540 fish examined at the weir.

The Little Trapper Lake weir count was halted by high water conditions starting August 13, 2002. The passage as of this date was 7,973 sockeye salmon (Appendix C.10). On average, the migration is 62% complete by this time. In the primary brood year, this figure was 69%. Analyses (involving timing of Kuthai Lake and Tatsamenie Lake runs, in conjunction with water levels over the course of the season) suggest that the Trapper Lake run was somewhat early in 2002. Consequently, the primary brood year run timing was used to expand the weir count of 7,973 (Appendix C.10). This expansion is 11,484 fish, which is average. Ancillary observations, including marked/unmarked ratios of carcasses observed at the weir, and visual inspections of the spawning grounds, support this escapement estimate. The estimated sex composition for the period that enumeration was possible was 33% female (n=479).

The Tatsamenie Lake weir count in 2002 was 5,495 sockeye salmon (Appendices C.9 and D.10). This was below average. The estimated sex composition was 46% female i.e. 2,601 fish (n=740). A total of 808 females and 596 males were held for broodstock; eggs/milt were taken from 542 females and 406 males. The total broodstock holding mortality was 74 females and 94 males. Totals of 175 females and 88 males were released unspawned at the end of the gamete collection program. The 808 females collected represented 31% of the estimated female escapement. (DFO guidelines limit broodstock collection to 30% of escapement). Prior to 1995, weir counts for the Tatsamenie system were made at Little Tatsamenie Lake and included fish which spawn between Little Tatsamenie and Tatsamenie lakes as well as fish which spawn in Tatsamenie Lake and its outlet stream. In 1994 weirs were operated at both Little Tatsamenie and Tatsamenie lakes; approximately 40% of the fish counted at the Little Tatsamenie weir did not migrate as far as the upper weir site at Tatsamenie Lake. In 1995 the weir was moved upstream to Tatsamenie Lake.

Coho salmon

Spawning escapement of coho salmon in the Canadian portion of the Taku River drainage was estimated from the joint Canada/U.S. mark-recapture program. Tag application occurred through October 7 (statistical week 40). Tag recovery occurred through October 10 (statistical week 41). The recovery effort consisted of commercial, test, and aboriginal fisheries. The above-border escapement was estimated to be 223,162 fish and the spawning escapement was estimated at 219,360 fish (Appendices C.8 and D.12). The spawning escapement is three times the average and more than six times the upper limit of the interim escapement goal range (27,500 to 35,000 fish).

Pink salmon

A total of 5,672 pink salmon were caught and released in the Canyon Island fish wheels in 2002 (Appendix D.14). There was no program in place to estimate the escapement of pink salmon to the Taku River in 2002. The pink salmon count at the fish wheels was below average.

Chum salmon

There was no program in place to estimate the system-wide escapement of chum salmon. A total of 205 chum salmon was caught and released in the Canyon Island fish wheels; below average (Appendix D.14).

The Taku River fall chum salmon run has been depressed since 1988. It is unlikely that the spawning escapement goal of 50,000 to 80,000 chum salmon was achieved in 2002.

ALSEK RIVER

Alsek River salmon stocks contribute to the U.S. commercial gillnet fisheries located in Dry Bay, at the mouth of the Alsek River (Figure 3). Unknown quantities of Alsek River origin fish are also taken in the

U.S. commercial gillnet and troll fisheries in the Yakutat area. No commercial fishery exists in the Canadian portions of the Alsek River drainage, although aboriginal and recreational fisheries occur in the Tatshenshini River and some of its headwater tributaries (Figure 3).

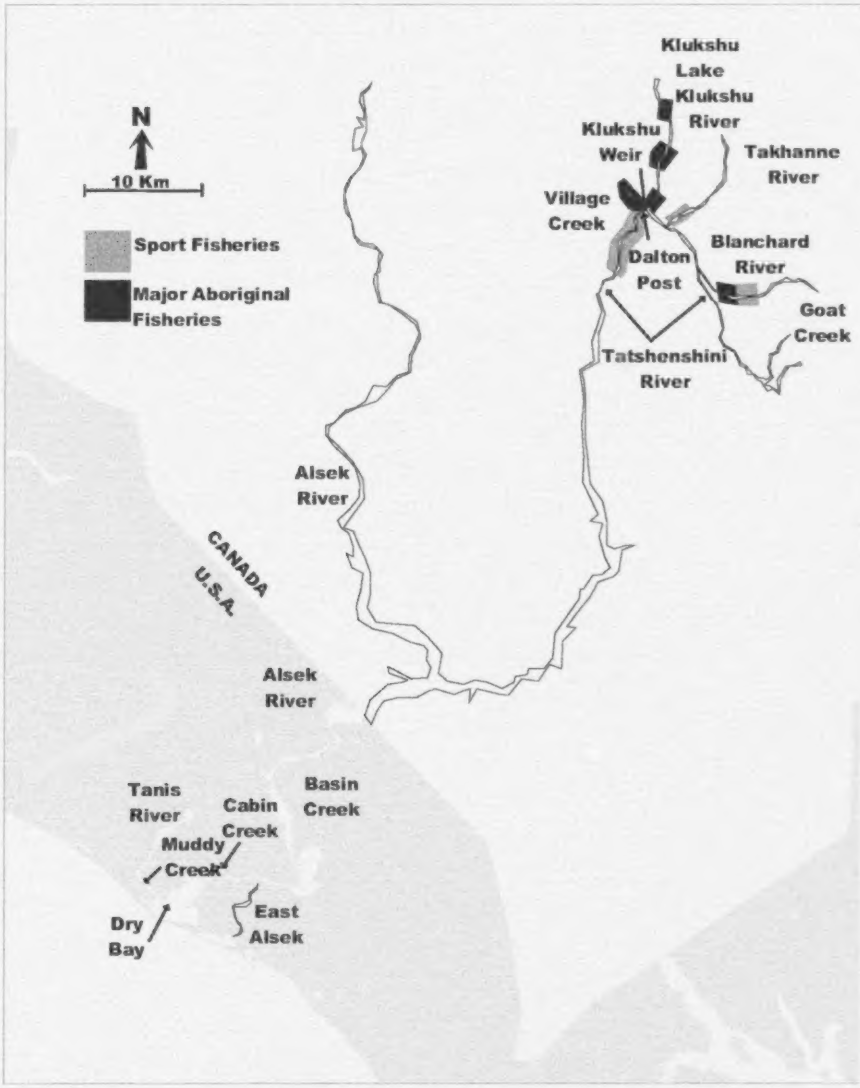

Figure 3. The Alsek River and principal U.S. and Canadian fishing areas.

Harvest Regulations & Management Objectives

Although catch sharing of Alsek River salmon stocks between Canada and the U.S. has not yet been specified, Annex IV does call for the development and implementation of cooperative abundance-based management plans and programs for Alsek River Chinook, sockeye and coho salmon. Interim escapement goal ranges for Alsek River sockeye and coho salmon were initially set by the TTC at 33,000 to 58,000 sockeye, and 5,400 to 25,000 coho salmon. However, stock assessment projects to determine system-wide escapements are currently in place and a data to refine these goals is being collected. The principle escapement-monitoring tool for Chinook, sockeye, and coho salmon stocks on the Alsek River is the Klukshu weir, operated by DFO and the Champagne-Aishihik First Nation (CAFN). The weir has been in operation since 1976. To make the management objectives of Chinook and sockeye salmon better defined in terms of Klukshu stocks, revised goals, expressed in terms of Klukshu stocks only, were established in 1999 and adopted again in 2002.

The initiative to establish a specific Klukshu Chinook salmon spawning goal began in 1991 when the TTC set an interim spawning objective of 4,700 Klukshu Chinook salmon. This goal was based more on manager's intuition than on science. From 1995 through 1997, the TTC reviewed this escapement level and concluded that goal of 4,700 Chinook salmon was not supported by the data. A new goal range of 1,100 to 2,300 fish was proposed based on joint analyses of stock-recruitment data. The Parties conducted independent internal reviews of these analyses. Although there was not unanimous support for the proposal, there was agreement on establishing a minimum goal consistent with the lower end of the proposed range. As a result, Canadian and U.S. managers agreed to a minimum spawning escapement goal of 1,100 Chinook salmon for the Klukshu system for 2000 and this was used again in the 2002 season.

The stock-recruitment analysis of Klukshu sockeye salmon data has been completed and has undergone internal peer review. The new escapement goal range for Klukshu River sockeye salmon is 7,500 to 15,000 spawners per year.

Programs are currently in place to estimate the inriver run size of Alsek River Chinook and sockeye salmon. Mark-recapture estimates of total inriver abundance have been generated since 1998 for Alsek River Chinook salmon and since 2000 for sockeye salmon.

Preseason Forecasts

The overall sockeye salmon run to the Klukshu River in 2002 was expected to be slightly below average in strength. Principal contributing brood years to the 2002 run was expected to be 1997 (Klukshu escapement of 11,303 sockeye salmon) and 1998 (Klukshu escapement of 13,580 sockeye salmon); the average 1992-2001 Klukshu escapement was 11,953 fish. Based on historical stock-recruitment analysis, the range of Klukshu escapements that appear most likely to produce maximum sustained yields is 7,500 to 15,000 sockeye salmon.

The 2002 estimated preseason forecast for Alsek River sockeye salmon run was expected to be 50,400 fish. This estimate was based on a predicted run of 12,600 Klukshu sockeye salmon derived from the average of the historical Klukshu stock-recruitment data and an assumed Klukshu contribution of 25%. The 2002 run size estimate was below the average run size estimate of 63,300 sockeye salmon (based on the Klukshu weir count expanded by 1/0.25 to account for other inriver escapement and an assumed U.S. harvest rate of 20%).

The Klukshu early sockeye salmon run escapements in 1997 and 1998 were 6,565 and 597, respectively (Appendix E.7). The 1997 escapement was approximately twice the average but the 1998 escapement was well below the optimum level of 2,500 sockeye salmon spawners as determined through separate stock-recruitment analyses by F&OC of the early run. Due to the over escapement 1997 and the under escapement in 1998, the early run was expected to be below average.

The Klukshu Chinook salmon escapements in 1996 and 1997, 3,382 and 2,829 fish, respectively, were above average (Appendix E.7). However, the escapements were above the optimum escapement range of 1,100 to 2,300 Chinook salmon estimated from current stock-recruitment analysis. As a result, the outlook was for an average to above average run. The 2002 overall Alsek River Chinook salmon run was expected to be approximately 15,400 Chinook salmon. This estimate was based on: a predicted run of

2,850 Klukshu Chinook salmon derived from the average of the historical Klukshu stock-recruitment data and a return/female spawner of 1.04:1; and an assumed Klukshu contribution to the total run of 17%. The coho salmon escapements observed at the Klukshu River in 1998 (1,921 coho salmon but incomplete count) and 1999 (2,481 coho salmon) suggests the run in 2002 would be slightly above average (Appendix E.7).

U.S. Fisheries

The Dry Bay commercial set gillnet fishery harvested 700 Chinook, 16,918 sockeye, 9,525 coho, 0 pink, and 1 chum salmon (Appendices E.1 and E.4). The Chinook salmon harvest was above average, the sockeye salmon harvest was average, and the coho salmon harvest was above average. The fishery was open for 73 days; above average. The majority of fishing time (55 days) occurred late in the season (late August through October) after the sockeye salmon run had largely passed through the fishery. The total effort expended in the fishery was 270 boat-days; below average. The estimate of subsistence harvests included 60 Chinook, 232 sockeye, and 35 coho salmon (Appendix E.5).

The Alsek River commercial fishery opened on the first Monday in June, statistical week 23 (June 3) (Appendix E.1). The initial opening was for 24 hours. For the next three weeks of the season weekly openings were extended to 48 hours as sockeye salmon CPUE remained well above average. These openings were limited to 48 hours to protect Klukshu sockeye salmon stocks. During the first week of July the weekly opening was limited to 24 hours due to below average sockeye salmon CPUE. For the next two weeks fishery performance was very strong, and both weekly fishing periods were extended to 72 hours. Openings were limited to 24 hours for the remainder of the sockeye salmon fishery (weeks 30 through 33). The fishery targeted coho salmon stocks after late August and fishing times were extended to 7 days per week for most of the coho salmon season.

Historically, a set gillnet fishery targeting Chinook salmon was conducted during May and early-June. Due to depressed runs, the directed fishery has been closed since 1963 and Chinook salmon have only been harvested incidentally during the sockeye salmon fishery in early June. From 1963 through 1997, the early June periods were limited in time in order to reduce the impact on Chinook salmon. With the advent of the new Chinook salmon escapement goal concern for incidentally caught Chinook salmon has diminished so the management of the early June periods was based on sockeye salmon CPUE. Gillnet mesh size was restricted to a maximum of six inches through July 1.

Canadian Fisheries

The aboriginal fishery harvested an estimated 120 Chinook 2,194 sockeye, and 6 coho salmon (Appendices E.2 and E.6). The Chinook salmon catch was below average. The sockeye salmon catch was above average and the coho salmon catch was below average catch of 28 fish.

Catches in the Tatshenshini recreational fishery were well below average for Chinook and sockeye salmon with an estimated 197 Chinook and 61 sockeye salmon harvested, and well above average for coho salmon with 283 being harvested (Appendices E.2 and E.6). The harvest was below average for Chinook and sockeye, and above average for coho salmon. The low Chinook and sockeye salmon catches were attributed to the changing river channel (i.e. fewer holding areas below the Tatshenshini/Klukshu rivers confluence) and the relocation of the Klukshu weir in 2001, which has allowed migrating salmon to stage further up from Dalton Post in the Klukshu River. Retention of sockeye salmon in the Tatshenshini was permitted starting on July 13th as the weir count had exceeded 4,500, i.e. the management threshold for allowing sockeye salmon retention in the recreational fishery prior to August 15, by July 9th. Record coho salmon counts at the Klukshu weir prompted an increase in the daily coho salmon recreational catch limit from two per day to four on October 4th. The catch data was derived from a creel census in the Dalton Post area and a catch card program conducted by the Yukon Salmon Committee (YSC) and DFO.

Management of salmon in the Yukon is a shared responsibility between DFO and the Yukon Salmon Committee (YSC). The YSC was established in 1995 pursuant to the Comprehensive Land Claim Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon. The Committee is a public board consisting of ten members, 70% of which are appointed by Yukon First Nations. Two CAFN members sit on the YSC. Although the Committee currently operates by consensus, the voting structure of the Committee is organized so that, should a vote be necessary, 50% of the votes reside with appointees of Yukon First Nations.

The 2002 Alsek-Tatshenshini management plan, adopted by CAFN, YSC, and DFO, was based on the objectives described in the ***Harvest Regulations & Management Objectives*** section above. For Chinook and early sockeye salmon management, the status of the Klukshu weir counts was to be reviewed on or about July 18 to ensure weir and spawning escapement targets were on track. The status of the late sockeye salmon run would be reviewed the first week of September. Adjustments to inseason fishing regimes in the sport and aboriginal fisheries would be made if deemed necessary. Other key elements of the plan are described below.

The center of aboriginal fishing activity in the Alsek River drainage occurs at the CAFN village of Klukshu, on the Haines road, about 60 km south of Haines Junction. Salmon are harvested by means of gaff and traditional fish traps as the fish migrate up the Klukshu River into Klukshu Lake. The fishing plan for the aboriginal fishery in the Klukshu River for the period prior to August 15 allowed fishing by means of fish traps for 2 days per week. After August 15, it was planned that the traps would be fished 3 days per week. Conservation thresholds that might invoke restrictions in the Aboriginal fishery were projected Klukshu weir counts of <1,100 Chinook and <1,500 early sockeye salmon. Gaff fisheries also exist on Village Creek and in the headwaters of the Tatshenshini River and tributaries thereof (Goat Creek, Stanley Creek, Parton River, and the Blanchard River). The plan did not restrict the gaff fishery other than to reserve Goat Creek, Stanley Creek, and the Parton River for elders only.

The majority of the recreational fishing effort on this drainage occurs on the Tatshenshini River, at and just downstream of the mouth of the Klukshu River in the vicinity of the abandoned settlement of Dalton Post. The management plan prohibited the retention of sockeye salmon in the recreational fishery prior to August 15 unless the weir count projection for the early run was >4,500 sockeye salmon. The Chinook salmon daily catch limit was one fish and the possession limit was 2 Chinook salmon. For other salmon species, the daily catch and possession limits were 2, and 4, respectively. However, the aggregate limit for all salmon combined was 2 salmon per day, 4 in possession. Sport fishing in the Dalton Post area was initially to be open from 6:00 am Saturday to 12:00 noon Tuesday each week. Headwater areas upstream of the British Columbia/Yukon border were to be closed for the season to protect spawning Chinook salmon. Conservation thresholds that were expected to invoke additional restrictions in the sport fishery were projected Klukshu weir counts of <1,500 Chinook and <10,600 sockeye salmon (early and late runs combined).

In 2002, all recreational salmon fishers were required to fill out a mandatory Yukon Salmon Conservation Catch Card (YSCCC), introduced by the YSC in 1999. The purpose of the YSCCC is to improve harvest estimates and to serve as a statistical base to ascertain the importance of salmon to the Yukon recreational fishery. Anglers are required to report their catch via mail by the late fall. Information requested includes the number, sex, size, date and location of salmon caught and released.

As in 2001, an area closure from the Klukshu River Bridge crossing up to the new weir location was imposed in the FN fishery by CAFN to allow for better staging opportunities in the vicinity of the Klukshu/Tatshenshini confluence.

Escapement

Total drainage abundance programs are being implemented as part of the development of abundance-based management regimes and to accurately assess whether the system-wide escapement goals for Alsek River Chinook and sockeye salmon stocks are appropriate and if so, are being achieved. At this time, there are no programs in place to estimate the drainage-wide coho salmon escapement. A large and variable proportion of the escapement of each species is enumerated at the weir on the Klukshu River. Current escapement monitoring programs including the Klukshu weir, Village Creek electronic counter, and aerial surveys allow annual comparisons of escapement indices. The most reliable long-term comparative escapement index for Alsek River drainage salmon stocks is the Klukshu River weir count. Escapements for 2002 are shown in Table 6.

Sockeye salmon

The weir count and escapement of Klukshu River sockeye salmon was 25,711 and 23,587 fish respectively in 2002 (Table 6, Appendices E.3 and E.7), and consisted of a record (1992-2001) count of 11,904 early-run fish (count through August 15) and an above average count (1992-2001) of 13,807 late-run sockeye salmon. The total escapement was twice the average and was 57.2% above the upper end of the recommend escapement goal range of 7,500 to 15,000 fish. The early-run and late-run count was above the average. The sockeye salmon count at Village Creek was 2,725 in 2002, which was below average (Appendix E.9).

Table 6. Catch and Klukshu index escapement data for Alsek River sockeye, Chinook, and coho salmon for 2002.

	Sockeye	Chinook	Coho
Escapement Index[a]			
Klukshu Weir Count	25,711	2,240	9,921
Klukshu Escapement	23,587	2,134	9,921
Harvest[b]			
U.S. Commercial	16,918	700	9,525
U.S. Subsistence	232	60	35
Canadian Sport	207	306	102
Canadian Aboriginal	1,317	244	28
Total	18,674	1,311	9,690

[a] Klukshu River salmon stocks represent an assumed large and variable portion of the total Alsek River salmon escapement.

[b] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

Run Reconstruction

	Alaska	Canada
Klukshu Weir Count	25,711	25,711
Adjustments	37%	60%
In River Run	69,489	42,852
Canadian Sport	207	207
Canadian Aboriginal	1,317	1,317
Above Weir Aboriginal		
Escapement	67,965	41,328

The inriver run estimate plus the US catch should equal the total run:

In River Run	69,489	42,852
U.S. Commercial	16,918	16,918
U.S. Subsistence	232	232
Total Run	86,639	60,002

A sockeye salmon mark-recapture program was initiated in 2000 to explore the feasibility of developing an abundance-based management regime for Alsek River sockeye salmon and this was continued in 2002. The estimate of the total inriver run using a modified Petersen estimate was 95,427 sockeye salmon (m=2832, r=73, c=2,487), with a 95% confidence interval ranging from 55,893 to 134,961 fish (Appendix E.8). The Klukshu weir count therefore represented approximately 32.3% of the total Alsek inriver run in 2002, below previously published contributions for other years ranging from 37% to 60%. The estimated contribution of Nesketaheen sockeye salmon to the total Alsek River run was 3%.

A radio tagging study was conducted in 2002 similar to the program in 2001 to determine the run timing and distribution of sockeye salmon in the Alsek River drainage. In total, 304 radio tags were applied to migrating sockeye salmon captured above the U.S. commercial fishery. Of these, 283 radio tags were recovered and assigned a fate; however, 10 of these were not assigned to a specific stock. Eighty-four tags (31% of the tags assigned to a stock) were found in the Klukshu River system, 15 radio-tagged fish (5%)

migrated into Village Creek/Nesketaheen Lake, 37 radio tags (14%) were located in the Blanchard River system, 93 radio-tagged fish (34%) were known to have spawned in the mainstem Tatshenshini River, and 39 were found in the mainstem Alsek River. Four radio tags were known to have dropped out of the study area; another 4 tags were regurgitated and 2 tags were tracked to what were considered unlikely spawning areas, i.e. the confluence of the Alsek and Tatshenshini Rivers.

Comparative counts for other Alsek River index tributaries are not available for 2002; historical counts are listed in Appendix E.9.

Chinook salmon

The most reliable comparative Chinook salmon escapement index for the Alsek River drainage is the Klukshu River weir count. The Chinook salmon weir was 2,240 and escapement count was 2,134 fish (Table 6, Appendices E.3 and E.7), and were both 81% of the 1992-2001 averages (Appendix E.7). The 2002 escapement was within the revised interim escapement goal range of 1,100 to 2,300 Klukshu Chinook salmon.

Aerial Chinook salmon surveys were again flown in 2002. The count of 351 Chinook salmon in the Blanchard River and the count of 86 fish in Goat Creek were above average. The Takhanne count of 220 was average. (Appendix E.10).

A Chinook salmon mark-recapture study was continued in 2002. The escapement estimate for Alsek River Chinook salmon was 9,168 fish (m=629, C=2,456, R=148) (Appendix E.11). The Klukshu escapement of 2,240 fish included 2,067 large fish, which represents approximately 24.3% of the total escapement of large Chinook salmon.

Coho salmon

The record Klukshu weir count and escapement of 9,921 fish are above average (Table 6, Appendices E.3 and E.7). The weir was removed prior to the completion of the coho salmon run and typically does not include fish that migrate after mid-October.

Sockeye Salmon Run Reconstruction

Estimates of the Klukshu contribution to the sockeye salmon run to the Alsek River drainage vary from 14.1% from the mark-recapture study in 2000 to 32.3% from the mark-recapture study done in 2002 (Appendix E.8). For 2002 the inriver run above Alsek Lake was estimated to be 79,546 sockeye salmon (Table 6). The Canadian aboriginal and sport catch of 1,524 fish left a spawning escapement of 67,965 fish. The U.S. subsistence and commercial catch of 17,150 sockeye salmon added to the inriver run indicated a total Alsek River sockeye salmon run of 96,696 fish.

ENHANCEMENT ACTIVITIES

Egg Collection

In 2002, sockeye salmon eggs were collected at Tahltan Lake on the Stikine River for the fifteenth year, and in the Tatsamenie Lake system on the Taku River, for the thirteenth year.

Tahltan Lake

The egg collection was contracted to Arc Environmental Ltd. for the sixth consecutive year. Lower than average escapement in 2002 made capture of broodstock relatively difficult in comparison with previous years that had higher escapement levels. An estimated 4.05 million eggs were collected from 1,490 females and 1,492 males. The estimated egg collection is based on eyed egg processing completed at the hatchery with a fecundity of 2,718 eggs per female. The majority of the broodstock was collected by beach seine at the major spawning site as has been done in previous years; in addition there were 71 females collected from another site. This new site will be developed further. The eggs were collected on twelve distinct egg-take days. Eggs collected on September 21 were delayed in shipment to the hatchery by two days due to weather. The egg-take goal at Tahltan Lake is 6.0 million eggs.

Tatsamenie Lake

Tatsamenie Lake broodstock was captured for the ninth year at an adult enumeration weir located at the outlet of Tatsamenie Lake. Egg collection was again contracted to B. Mercer and Associates Ltd. A total of 542 females and 406 males were held prior to the first egg take on September 19 (Appendix C.9). The held broodstock represented 20.3% of the total (5,495) 2002 sockeye salmon escapement into Tatsamenie Lake. An estimated 2.50 million eggs were collected (based on a hatchery estimates of egg counts and a fecundity of 4,246) from 542 females and 406 males over 6 egg collections. Mortality of held fish included 74 females and 94 males; other fish not used for egg collection were released in apparent good condition.

Tahltan/Tuya Split

The enhancement subcommittee is still discussing the advisability of planting some fry from the 2002 egg collection. Arguments for a Tuya plant include better survivals to adult and that marked fish could be used to compare to "natural" fry production from adults in the radio tagging study. Arguments against the plant center are the barrier and lack of success with capturing adults there and possible risks of spawning by non-indigenous stocks.

Incubation, Thermal Marking, and Fry Plants (2001 Brood Year)

The egg incubation and thermal-marking program at Snettisham Hatchery went smoothly in year 2001/2002. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Incubation of 2001 brood eggs took place at Snettisham Hatchery and the resultant fry were transported to the appropriate systems from May 15 to June 6, 2002. An estimated 556,000 Tatsamenie fry in three incubators were lost to the IHN virus.

Tahltan Lake

A total of 2.53 million fry from the 2001 Tahltan sockeye salmon egg take were planted back into Tahltan Lake in 2002 (Appendix F.1). Survival from green-egg to outplanted fry was 77%. Fry outplanting took place from June 3 to June 12.

Tuya Lake

No fry were planted in Tuya Lake this year.

Tatsamenie Lake

A total of 2.23 million fry from the 2001 egg-take were planted into Tatsamenie Lake in 2002 (Appendix F. 3). Survival from green-egg to outplanted fry was 64%. Outplanting took place from May 30 to June 16.

Tuya River Telemetry Program

Special funding was awarded to ADF&G in 2002 from the Southeast Sustainable Salmon Fund (SSSF) for further assessment of sockeye salmon passage to Tuya Lake above the major barrier by radio tagging and for construction of a fish pass/harvest structure on the Tuya River. These funds were intended to provide for efficient management of surplus adult sockeye salmon at the Tuya River blockage and to assess the ability of sockeye salmon to migrate to Tuya Lake (93 miles above the blockage) and successfully spawn. The radio tagging was completed and information indicates that only a small number of fish were able to make it above migration barriers to the lake. Construction of the fish pass/harvest structure was delayed in the spring and again in the fall due to high water levels and concerns about slope stability. At present, design plans for this fish pass/harvest structure are being reviewed.

Outplant Evaluation Surveys

Acoustic, Trawl, Beach seine and Limnological Sampling

Standard limnological, beach seine, hydroacoustic, and trawl surveys were conducted at Tatsamenie by B. Mercer & Associates. Two limnological surveys were also conducted at Tuya Lake. Limnological and beach seine surveys were performed at Tahltan Lake by onsite DFO personnel.

Additional evaluation surveys were conducted at Tatsamenie Lake as part of an U.S. funded research project (funding from the Governor's Fund) directed at understanding the causes of the lower than expected fry to smolt survival for planted fish. The fieldwork consisted of additional beach seine surveys, trawling, and hydroacoustic surveys and was performed by B. Mercer & Associates and ADF&G personnel. Fry otoliths were examined at DFO's thermal mark lab in Whitehorse, Yukon.

Thermal Mark Laboratories

ADF&G Thermal Mark Laboratory

During the 2002 season the ADF&G thermal mark lab received 12,306 sockeye salmon otoliths collected by ADF&G and DFO staff as part of the U.S./Canada fry-planting evaluation program. These collections came from commercial and test fisheries in U.S. waters and in Canadian fisheries on the Taku and Stikine Rivers over a 12-week period. In addition, several escapement samples were examined. Combined, the laboratory processed 11,965 of the otoliths received (97%) and provided estimates on hatchery contributions for almost 100 distinct sampling collections. Of these totals, 2,390 otoliths were identified and classified as belonging to one of 29 marked groups. Estimates of the percentage of hatchery fish contributed to commercial fishery catches were provided to ADF&G and DFO fishery managers 24 to 48 hours after samples arrived at the lab.

Adult sockeye salmon otoliths were processed inseason by the ADF&G otolith lab to estimate the weekly contribution of planted sockeye salmon to the District 106, 108, and 111 gillnet fisheries and to Canadian commercial fisheries in the Stikine and Taku Rivers. Contributions of planted sockeye salmon stocks to Alaskan catches were as follows: 4,738 planted Stikine River fish to District 106 and 108 and 667 planted

Taku River fish to District 111 (includes inriver personal use fishery). Estimates of contributions to Canadian fisheries included 6,153 planted Stikine River fish to Stikine River fisheries and 49 planted Taku River fish to the Taku River fisheries.

Canadian Thermal Mark Laboratory

Sub-samples of juvenile and adult otolith samples collected during the 2002 season were analyzed at the DFO thermal mark lab in Whitehorse. There was a substantive increase in the collection and analyses of beach seine and trawl samples collected at Tatsamenie Lake in the summer and fall of 2002. These samples were collected as part of the joint U.S./Canada assessment of the poor survival of fry planted into Tatsamenie Lake.

APPENDICES

Standards

Large Chinook salmon are MEF length ≥ 660
Unless otherwise stated Chinook salmon are large
Data not available to estimate catches of Alaska Hatchery pink and chum salmon
All catches of Tahltan, Trapper, and Tatsamenie, unless otherwise noted, include both wild and hatchery fish.

Appendix A. 1. Weekly salmon catch in the Alaskan District 106 commercial drift gillnet fisheries, 2002.

Effort may be less than the sum of effort from 106-41&42 and 106-30 because some boats fished in more than one subdistrict.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
25	16-Jun	136	3,382	1,469	18	1,471	55	2.0	110
26	23-Jun	48	3,625	1,602	12	3,170	50	2.0	100
27	30-Jun	49	7,362	5,272	1,558	9,982	63	2.0	126
28	7-Jul	68	10,621	10,846	2,034	12,829	74	2.0	148
29	14-Jul	22	11,744	11,275	1,852	12,710	72	2.0	144
30	21-Jul	17	6,790	9,027	4,855	9,600	72	2.0	144
31	28-Jul	37	5,528	7,818	6,019	9,873	61	2.0	122
32	4-Aug	34	3,555	9,319	13,397	4,928	42	2.0	84
33	11-Aug	1	1,833	11,248	24,271	6,215	57	3.0	171
34	18-Aug	8	1,227	15,981	19,842	7,253	80	3.0	240
35	25-Aug	3	218	13,432	4,909	3,966	65	3.0	195
36	1-Sep	8	190	40,697	3,909	12,713	83	3.0	249
37	8-Sep	3	48	33,863	266	7,973	80	4.0	320
38	15-Sep	4	9	23,096	7	5,794	70	4.0	280
39	22-Sep	8	3	18,176	2	3,045	45	3.0	135
40	29-Sep	0	0	10,709	0	866	25	3.0	75
41	6-Oct	0	0	2,498	0	149	11	3.0	33
42	13-Oct	0	0	232	0	4	4	2.0	8
Total		446	56,135	226,560	82,951	112,541		47.0	2,684

Alaska Hatchery Contributions of Large Chinook and Coho salmon

		Large Chinook		Coho	
		Hatchery	Wild	Hatchery	Wild
25	16-Jun	50	86	677	792
26	23-Jun	20	28	790	812
27	30-Jun	0	49	2,677	2,595
28	7-Jul	0	68	5,930	4,916
29	14-Jul	0	22	3,502	7,773
30	21-Jul	44	-27	2,695	6,332
31	28-Jul	0	37	2,379	5,439
32	4-Aug	39	-5	2,291	7,028
33	11-Aug	0	1	1,805	9,443
34	18-Aug	7	1	1,369	14,612
35	25-Aug	0	3	1,803	11,629
36	1-Sep	0	8	6,070	34,627
37	8-Sep	0	3	15,799	18,064
38	15-Sep	0	4	12,085	11,011
39	22-Sep	0	8	12,388	5,788
40	29-Sep	0	0	6,225	4,484
41	6-Oct	0	0	0	2,498
42	13-Oct	0	0	0	232
Total		161	285	78,485	148,075

Appendix A. 2. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 106 commercial drift gillnet fisheries, 2002.

Data based on scale pattern analysis, and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
25	0.434	0.255	0.080	0.209	0.023	0.311	0.035	0.138	0.188	0.046	0.143
26	0.274	0.153	0.204	0.300	0.068	0.572	0.049	0.418	0.319	0.165	0.311
27	0.651	0.082	0.087	0.160	0.019	0.266	0.036	0.287	0.275	0.075	0.233
28	0.779	0.100	0.030	0.051	0.040	0.121	0.007	0.122	0.108	0.190	0.130
29	0.870	0.036	0.001	0.038	0.054	0.093	0.004	0.005	0.090	0.296	0.114
30	0.881	0.059	0.011	0.013	0.036	0.060	0.000	0.029	0.018	0.113	0.042
31	0.890	0.091	0.000	0.001	0.018	0.019	0.000	0.000	0.002	0.054	0.013
32	0.842	0.140	0.000	0.000	0.019	0.019	0.000	0.000	0.000	0.052	0.012
33	0.864	0.130	0.000	0.000	0.006	0.006	0.000	0.000	0.000	0.004	0.001
34	0.805	0.188	0.000	0.000	0.007	0.007	0.000	0.000	0.000	0.002	0.001
35	0.752	0.232	0.000	0.000	0.017	0.017	0.000	0.000	0.000	0.001	0.000
36	0.752	0.232	0.000	0.000	0.017	0.017	0.000	0.000	0.000	0.001	0.000
37	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.000	0.000
38	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.000	0.000
39	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.000	0.000
Total	0.758	0.098	0.037	0.072	0.035	0.144	0.012				
Catches											
25	1,467	863	269	707	76	1,052	120	2.4	6.4	0.7	9.6
26	994	556	739	1,088	248	2,075	177	7.4	10.9	2.5	20.7
27	4,794	607	640	1,180	141	1,961	262	5.1	9.4	1.1	15.6
28	8,277	1,057	319	546	422	1,287	72	2.2	3.7	2.9	8.7
29	10,223	425	13	443	640	1,096	48	0.1	3.1	4.4	7.6
30	5,983	402	75	86	244	405	0	0.5	0.6	1.7	2.8
31	4,919	503	0	8	98	106	0	0.0	0.1	0.8	0.9
32	2,992	497	0	0	66	66	0	0.0	0.0	0.8	0.8
33	1,584	238	0	0	11	11	0	0.0	0.0	0.1	0.1
34	988	231	0	0	8	8	0	0.0	0.0	0.0	0.0
35	164	51	0	0	4	4	0	0.0	0.0	0.0	0.0
36	143	44	0	0	3	3	0	0.0	0.0	0.0	0.0
37	36	11	0	0	1	1	0	0.0	0.0	0.0	0.0
38	7	2	0	0	0	0	0	0.0	0.0	0.0	0.0
39	2	1	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	42,573	5,487	2,055	4,058	1,962	8,075	680	17.7	34.1	15.0	66.8

Appendix A. 3. Weekly salmon catch and effort in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2002.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
25	16-Jun	89	2,879	998	4	1,325	43	2.0	86
26	23-Jun	45	3,405	1,186	6	3,040	44	2.0	88
27	30-Jun	32	6,265	3,178	180	7,734	50	2.0	100
28	7-Jul	18	6,910	7,692	113	7,440	42	2.0	84
29	14-Jul	4	6,935	6,445	181	6,465	42	2.0	84
30	21-Jul	4	4,632	5,316	561	5,177	42	2.0	84
31	28-Jul	2	3,353	3,757	1,796	4,343	36	2.0	72
32	4-Aug	0	1,876	4,997	4,348	2,503	17	2.0	34
33	11-Aug	0	1,556	8,313	15,531	4,639	40	3.0	120
34	18-Aug	1	791	11,470	12,357	4,608	54	3.0	162
35	25-Aug	1	197	11,383	3,921	3,006	46	3.0	138
36	1-Sep	7	173	32,443	1,841	7,423	56	3.0	168
37	8-Sep	3	46	28,306	238	6,101	62	4.0	248
38	15-Sep	2	9	18,394	7	4,923	53	4.0	212
39	22-Sep	8	3	12,585	2	1,875	33	3.0	99
40	29-Sep	0	0	5,918	0	637	15	3.0	45
41-42	6-Oct	0	0	1,346	0	94	4	5.0	20
Total		216	39,030	163,727	41,086	71,333		47.0	1,844

Appendix A. 4. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2002.

Data based on scale pattern analysis, and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
25	0.397	0.270	0.086	0.233	0.014	0.333	0.042	0.138	0.207	0.030	0.150
26	0.250	0.152	0.214	0.315	0.068	0.597	0.052	0.396	0.324	0.168	0.311
27	0.648	0.072	0.096	0.169	0.015	0.280	0.042	0.286	0.282	0.062	0.237
28	0.782	0.098	0.035	0.044	0.041	0.120	0.010	0.138	0.096	0.215	0.133
29	0.875	0.039	0.000	0.029	0.056	0.086	0.007	0.000	0.065	0.297	0.095
30	0.866	0.052	0.016	0.019	0.047	0.082	0.000	0.043	0.027	0.167	0.061
31	0.899	0.088	0.000	0.000	0.013	0.013	0.000	0.000	0.000	0.039	0.008
32	0.842	0.154	0.000	0.000	0.005	0.005	0.000	0.000	0.000	0.017	0.004
33	0.884	0.114	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.000
34	0.838	0.162	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.001	0.000
36	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.001	0.000
37	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.000	0.000
38	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.000	0.000
39	0.752	0.231	0.000	0.000	0.016	0.016	0.000	0.000	0.000	0.000	0.000
Total	0.730	0.101	0.049	0.087	0.034	0.169	0.017	0.282	0.507	0.211	1.000
Catches											
25	1,143	777	248	670	41	959	120	2.9	7.8	0.5	11.2
26	852	519	730	1,072	232	2,034	177	8.3	12.2	2.6	23.1
27	4,057	451	600	1,060	97	1,757	262	6.0	10.6	1.0	17.6
28	5,403	679	243	302	283	828	72	2.9	3.6	3.4	9.9
29	6,069	271	0	204	391	595	48	0.0	2.4	4.7	7.1
30	4,010	242	75	86	219	380	0	0.9	1.0	2.6	4.5
31	3,013	296	0	0	44	44	0	0.0	0.0	0.6	0.6
32	1,579	288	0	0	9	9	0	0.0	0.0	0.3	0.3
33	1,376	178	0	0	2	2	0	0.0	0.0	0.0	0.0
34	663	128	0	0	0	0	0	0.0	0.0	0.0	0.0
35	148	46	0	0	3	3	0	0.0	0.0	0.0	0.0
36	130	40	0	0	3	3	0	0.0	0.0	0.0	0.0
37	35	11	0	0	1	1	0	0.0	0.0	0.0	0.0
38	7	2	0	0	0	0	0	0.0	0.0	0.0	0.0
39	2	1	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	28,487	3,928	1,896	3,394	1,325	6,615	680	21.0	37.6	15.7	74.2

Appendix A. 5. Weekly salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2002.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
25	16-Jun	47	503	471	14	146	12	2.0	24
26	23-Jun	3	220	416	6	130	7	2.0	14
27	30-Jun	17	1,097	2,094	1,378	2,248	13	2.0	26
28	7-Jul	50	3,711	3,154	1,921	5,389	33	2.0	66
29	14-Jul	18	4,809	4,830	1,671	6,245	32	2.0	64
30	21-Jul	13	2,158	3,711	4,294	4,423	30	2.0	60
31	28-Jul	35	2,175	4,061	4,223	5,530	25	2.0	50
32	4-Aug	34	1,679	4,322	9,049	2,425	26	2.0	52
33	11-Aug	1	277	2,935	8,740	1,576	18	3.0	54
34	18-Aug	7	436	4,511	7,485	2,645	27	3.0	81
35	25-Aug	2	21	2,049	988	960	20	3.0	60
36	1-Sep	1	17	8,254	2,068	5,290	27	3.0	81
37	8-Sep	0	2	5,557	28	1,872	22	4.0	88
38	15-Sep	2	0	4,702	0	871	20	4.0	80
39	22-Sep	0	0	5,591	0	1,170	14	3.0	42
40	29-Sep	0	0	4,791	0	229	11	3.0	33
41	6-Oct	0	0	1,152	0	55	5	3.0	15
42	13-Oct	0	0	232	0	4	3	2.0	6
Total		230	17,105	62,833	41,865	41,208		47.0	896

Appendix A. 6. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2002.

Data based on scale pattern analysis and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
25	0.645	0.170	0.041	0.073	0.071	0.185	0.000	0.197	0.000	0.112	0.120
26	0.645	0.170	0.041	0.073	0.071	0.185	0.000	0.148	0.000	0.084	0.090
27	0.672	0.142	0.036	0.109	0.040	0.186	0.000	0.348	0.000	0.129	0.242
28	0.774	0.102	0.020	0.066	0.037	0.124	0.000	0.261	0.000	0.160	0.214
29	0.864	0.032	0.003	0.050	0.052	0.104	0.000	0.046	0.000	0.296	0.241
30	0.914	0.074	0.000	0.000	0.012	0.012	0.000	0.000	0.000	0.032	0.013
31	0.876	0.095	0.000	0.004	0.025	0.029	0.000	0.000	0.000	0.082	0.038
32	0.842	0.124	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.083	0.034
33	0.751	0.217	0.000	0.000	0.032	0.032	0.000	0.000	0.000	0.013	0.005
34	0.746	0.235	0.000	0.000	0.019	0.019	0.000	0.000	0.000	0.008	0.003
35	0.746	0.235	0.000	0.000	0.019	0.019	0.000	0.000	0.000	0.001	0.000
36	0.746	0.235	0.000	0.000	0.019	0.019	0.000	0.000	0.000	0.000	0.000
37	0.746	0.235	0.000	0.000	0.019	0.019	0.000	0.000	0.000	0.000	0.000
Total	0.824	0.091	0.009	0.039	0.037	0.085	0.000	0.136	0.459	0.405	1.000
Catches											
25	324	86	21	37	35	93	0	0.9	1.5	1.5	3.9
26	142	37	9	16	16	41	0	0.7	1.2	1.1	2.9
27	737	156	40	120	44	204	0	1.5	4.6	1.7	7.8
28	2,874	378	76	244	139	459	0	1.2	3.7	2.1	7.0
29	4,154	154	13	239	249	501	0	0.2	3.7	3.9	7.8
30	1,973	160	0	0	25	25	0	0.0	0.0	0.4	0.4
31	1,906	207	0	8	54	62	0	0.0	0.2	1.1	1.2
32	1,413	209	0	0	57	57	0	0.0	0.0	1.1	1.1
33	208	60	0	0	9	9	0	0.0	0.0	0.2	0.2
34	325	103	0	0	8	8	0	0.0	0.0	0.1	0.1
35	16	5	0	0	0	0	0	0.0	0.0	0.0	0.0
36	13	4	0	0	0	0	0	0.0	0.0	0.0	0.0
37	1	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	14,086	1,559	159	664	637	1,460	0	4.4	14.9	13.1	32.5

Appendix A. 7. Weekly salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 2002.

The permit days are adjusted for boats which did not fish the entire opening and are less than the sum of the permits times the d

		Catch					Effort		
	Start								Permit
Week	Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Days
31	28-Jul	2	77	150	845	525	4	2.0	8.0
32	4-Aug	6	63	490	1,819	620	7	2.0	14.0
33	11-Aug	0	30	505	565	126	7	3.0	21.0
34	18-Aug	1	12	985	917	35	5	3.0	15.0
35	25-Aug	11	9	3,620	204	40	16	3.0	48.0
36	1-Sep	4	16	8,123	184	365	20	3.0	60.0
37	8-Sep	1	1	3,966	44	109	21	4.0	84.0
38	15-Sep	0	0	2,256	0	169	13	4.0	52.0
39-40	22-Sep	0	0	1,036	0	28	3.5	6.0	21.0
Total		25	208	21,131	4,578	2,017		35.0	323

Alaska Hatchery Contributions of Large Chinook and Coho salmon

		Large Chinook		Coho	
		Hatchery	Wild	Hatchery	Wild
Alaska Hatchery Contribution					
31	28-Jul	0	2	0	150
32	4-Aug	0	6	0	490
33	11-Aug	0	0	14	491
34	18-Aug	0	1	0	985
35	25-Aug	0	11	0	3,620
36	1-Sep	0	4	372	7,751
37	8-Sep	0	1	122	3,844
38	15-Sep	0	0	713	1,543
39-40	22-Sep	0	0	228	808
Total		0	25	1,449	19,682

Appendix A. 8. Weekly stock proportions and stock-specific catch of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 2002.

Data based on scale pattern analysis and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
31	0.896	0.091	0.000	0.000	0.013	0.013	0.000	0.000	0.000	1.000	1.000
32	0.857	0.143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33	0.933	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	0.917	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	0.769	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36	0.769	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	0.769	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	0.875	0.120	0.000	0.000	0.005	0.005	0.000	0.000	0.000	1.000	1.000
Catch											
31	69	7	0	0	1	1	0	0.0	0.0	0.1	0.1
32	54	9	0	0	0	0	0	0.0	0.0	0.0	0.0
33	28	2	0	0	0	0	0	0.0	0.0	0.0	0.0
34	11	1	0	0	0	0	0	0.0	0.0	0.0	0.0
35	7	2	0	0	0	0	0	0.0	0.0	0.0	0.0
36	12	4	0	0	0	0	0	0.0	0.0	0.0	0.0
37	1	0	0	0	0	0	0	0.0	0.0	0.0	0.0
38	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	182	25	0	0	1	1	0	0.0	0.0	0.1	0.1

Appendix A. 9. Weekly salmon catch and effort and sockeye salmon stock composition in the Alaskan District 108 test fishery, 2002.

No test fishery

Appendix A. 10. Weekly salmon catch and effort in the Canadian commercial fishery in the lower Stikine River, 2002.

		Catch						Effort		
	Start	Chinook								Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Days	Days
26	23-Jun	251	106	844	0	0	0	9.00	1.0	9.0
27	30-Jun	106	87	1,780	0	0	0	10.00	1.0	10.0
28	7-Jul	34	11	1,462	0	0	6	10.00	1.0	10.0
29	14-Jul	23	4	1,674	0	0	0	11.00	1.0	11.0
30	21-Jul	0	0	2,185	0	0	0	11.00	2.0	22.0
31	28-Jul	19	1	2,394	56	4	16	11.00	4.0	44.0
32	4-Aug	0	0	71	10	0	0	7.00	4.0	28.0
33	11-Aug	0	0	9	4	15	10	5.00	3.0	15.0
34	18-Aug	0	0	1	12	0	1	5.00	4.0	20.0
Total		433	209	10,420	82	19	33		21.0	169.0

Appendix A. 11. Weekly sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 2002.

Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the catch by

If no fishery, commercial catch from comparable week is used.

	Proportion				Planted	Catch			Tahltan	
Week	Small Egg	Tahltan	Tuya	Mainstem	Tahltan	Tahltan	Tuya	Mainstem	Wild	Planted
26	0.877	0.726	0.185	0.089	0.167	613	156	75	472	141
27	0.900	0.602	0.250	0.148	0.146	1,071	445	264	811	260
28	0.849	0.561	0.300	0.140	0.135	820	438	204	622	198
29	0.482	0.315	0.164	0.521	0.064	528	274	872	421	107
30	0.113	0.114	0.009	0.877	0.032	249	20	1,916	179	70
31	0.024	0.023	0.001	0.977	0.000	54	2	2,338	54	0
32	0.020	0.000	0.000	1.000	0.000	0	0	71	0	0
33	0.333	0.000	0.000	1.000	0.000	0	0	9	0	0
34	0.000	0.000	0.000	1.000	0.000	0	0	1	0	0
35	0.000	0.000	0.000	1.000	0.000	0	0	0	0	0
36	0.000	0.000	0.000	1.000	0.000	0	0	0	0	0
Total						3,335	1,335	5,750	2,559	776
Proportion						0.320	0.128	0.552	0.246	0.074

	Catch/Effort below Porcupine	Total		CPUE			Tahltan	
Week	Sockeye Permit Day	CPUE	Small Egg	Tahltan	Tuya	Mainstem	Wild	Planted
26			93.778	68.111	17.333	8.333	52.444	15.667
27			178.000	107.100	44.500	26.400	81.100	26.000
28			146.200	82.000	43.800	20.400	62.200	19.800
29			152.182	48.000	24.909	79.273	38.273	9.727
30			99.318	11.318	0.909	87.091	8.136	3.182
31			54.409	1.227	0.045	53.136	1.227	0.000
32			2.536	0.000	0.000	2.536	0.000	0.000
33			0.600	0.000	0.000	0.600	0.000	0.000
34			0.050	0.000	0.000	0.050	0.000	0.000
Total			727.073	317.757	131.497	277.819	243.381	74.376
Proportion				0.437	0.181	0.382	0.335	0.102

Appendix A. 12. Weekly salmon catch and effort in the Canadian commercial fishery in the upper Stikine River, 2002.

		Catch						Effort		
	Start	Chinook								Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Days	Days
28	7-Jul	2	3	89				2.0	1.0	2.0
29	14-Jul	0	0	165				2.0	1.0	2.0
30	21-Jul	0	0	125				2.0	1.0	2.0
31	28-Jul	0	0	45				1.0	2.0	2.0
32	4-Aug	0	0	60				1.0	4.0	4.0
Total		2	3	484	0	0	0	8.0	9.0	12.0

Appendix A. 13. Weekly salmon catch and effort in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 2002.

	Start	Catch						Effort		
		Chinook								Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Days	Days
21	19-May	22	0	0				2.33	3.0	7.0
22	26-May	7	0	0				1.50	4.0	6.0
23	2-Jun	108	21	0				4.43	7.0	31.0
24	9-Jun	29	9	0				2.25	4.0	9.0
25	16-Jun	99	20	3				3.40	5.0	17.0
26	23-Jun	118	26	52				3.71	7.0	26.0
27	30-Jun	135	85	461				8.71	7.0	61.0
28	7-Jul	146	103	1,783				12.00	7.0	84.0
29	14-Jul	130	40	1,993				12.14	7.0	85.0
30	21-Jul	86	35	1,189				8.86	7.0	62.0
31	28-Jul	45	27	863				6.29	7.0	44.0
32	4-Aug	2	0	46				3.00	1.0	3.0
Total		927	366	6,390	0	0	0		66	435.0

Appendix A. 14. Catch by stock and week for sockeye salmon harvested in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 2002.

	Start	Stock			Tahltan	
Week	Date	Tahltan	Tuya	Mainstem	Wild	Planted
Catch by stock for upper river commercial fishery						
27	30-Jun	0	0	0	0	0
28	7-Jul	48	33	8	36	12
29	14-Jul	61	98	5	39	22
30	21-Jul	59	52	14	51	8
31	28-Jul	5	36	3	5	0
32	4-Aug	8	21	31	8	0
Total		182	240	62	139	42
Catch by stock for upper river aboriginal fishery						
27	30-Jun	292	70	99	271	21
28	7-Jul	961	669	153	723	238
29	14-Jul	741	1,188	64	475	266
30	21-Jul	563	490	136	483	80
31	28-Jul	105	696	62	105	0
32	4-Aug	6	16	24	6	0
Total		2,697	3,155	538	2,092	605

Appendix A. 15. Weekly salmon catch and effort in the Canadian test fishery in the Stikine River, 2002.

		Catch						
	Start	Chinook						# Drifts/
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Set Hours
Drift gillnet								
26	23-Jun	31	25	118	0	0	1	77
27	30-Jun	22	18	169	0	0	2	84
28	7-Jul	7	5	137	0	0	4	84
29	14-Jul	2	2	179	0	3	5	84
30	21-Jul	0	0	83	2	2	10	70
31	28-Jul	0	0	25	4	2	1	42
32	4-Aug	0	0	11	9	3	3	56
33	11-Aug	1	0	13	20	1	2	56
34	18-Aug	0	0	6	24	0	0	56
35	25-Aug	0	0	3	42	1	2	56
36	1-Sep	0	0	0	94	2	1	56
37	8-Sep	0	0	0	51	0	0	32
38	15-Sep	0	0	0	27	0	0	30
39	22-Sep	0	0	0	15	0	0	30
40	29-Sep	0	0	0	12	0	0	30
41	6-Oct	0	0	0	4	0	0	30
42	13-Oct	0	0	0	2	0	0	25
Total		63	50	744	306	14	31	898
Set gillnet								
26	23-Jun	15	37	561	0	0	0	216
27	30-Jun	16	17	947	0	0	1	240
28	7-Jul	4	1	641	0	0	5	240
29	14-Jul	9	0	746	0	3	8	240
30	21-Jul	3	0	322	0	2	8	192
31	28-Jul	1	1	199	8	0	2	132
32	4-Aug	0	0	65	18	7	11	192
33	11-Aug	0	0	20	93	0	2	168
34	18-Aug	0	0	14	91	0	0	168
35	25-Aug	0	0	5	59	0	3	156
36	1-Sep	0	0	5	373	0	0	156
37	8-Sep	0	0	2	321	0	2	140
38	15-Sep	0	0	3	198	1	2	128
39	22-Sep	0	0	4	103	0	3	128
40	29-Sep	0	0	3	38	0	0	127
41	6-Oct	0	0	2	19	0	1	127
42	13-Oct	0	0	1	2	0	0	96
Total		48	56	3,540	1,323	13	48	2,845

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		Catch						
	Start	Chinook						# Drifts/
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Set Hours
Additional Drifts								
19	5-May	93	8	0	0	0	0	120
20	12-May	180	30	0	0	0	0	226
21	19-May	244	29	0	0	0	0	204
22	26-May	265	17	0	0	0	0	216
23	2-Jun	332	47	13	0	0	0	232
24	9-Jun	261	58	36	0	0	0	247
25	16-Jun	170	28	76	0	0	0	274
37	8-Sep	0	0	1	530	0	1	90
38	15-Sep	0	0	1	252	0	0	91
39	22-Sep	0	0	0	147	0	0	91
40	29-Sep	0	0	0	120	0	0	91
41	6-Oct	0	0	1	48	0	0	91
42	13-Oct	0	0	0	19	0	0	77
Total		1,545	217	128	1,116	0	1	2,048
Total Test Fishery Catch								
19	5-May	93	8	0	0	0	0	0
20	12-May	180	30	0	0	0	0	0
21	19-May	244	29	0	0	0	0	0
22	26-May	265	17	0	0	0	0	0
23	2-Jun	332	47	13	0	0	0	0
24	9-Jun	261	58	36	0	0	0	0
25	16-Jun	170	28	76	0	0	0	0
26	23-Jun	46	62	679	0	0	1	77
27	30-Jun	38	35	1,116	0	0	3	84
28	7-Jul	11	6	778	0	0	9	84
29	14-Jul	11	2	925	0	6	13	84
30	21-Jul	3	0	405	2	4	18	70
31	28-Jul	1	1	224	12	2	3	42
32	4-Aug	0	0	76	27	10	14	56
33	11-Aug	1	0	33	113	1	4	56
34	18-Aug	0	0	20	115	0	0	56
35	25-Aug	0	0	8	101	1	5	56
36	1-Sep	0	0	5	467	2	1	56
37	8-Sep	0	0	3	902	0	3	32
38	15-Sep	0	0	4	477	1	2	30
39	22-Sep	0	0	4	265	0	3	30
40	29-Sep	0	0	3	170	0	0	30
41	6-Oct	0	0	3	71	0	1	30
42	13-Oct	0	0	1	23	0	0	25
Total Test Catch		1,656	323	4,412	2,745	27	80	5,790

Appendix A. 16. Weekly catch, CPUE, and migratory timing of Tahltan, Tuya, and mainstem sockeye salmon stocks in the Stikine test fishery, 2002.

Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the catch by age.

If no test fishery, commercial catch from comparable week is used.

	Proportions			Catch			CPUE				Migratory Timing		
Week	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Total	Tahltan	Tuya	Mainstem
Drift gillnet													
26	0.586	0.255	0.159	69	30	19	0.898	0.390	0.244	1.532	0.093	0.040	0.025
27	0.512	0.232	0.256	86	39	43	1.029	0.467	0.516	2.012	0.106	0.048	0.053
28	0.420	0.177	0.402	58	24	55	0.686	0.289	0.656	1.631	0.071	0.030	0.068
29	0.279	0.082	0.639	50	15	114	0.594	0.175	1.362	2.131	0.061	0.018	0.141
30	0.180	0.040	0.780	15	3	65	0.214	0.047	0.925	1.186	0.022	0.005	0.096
31	0.098	0.000	0.902	2	0	23	0.058	0.000	0.537	0.595	0.006	0.000	0.055
32	0.039	0.000	0.961	0	0	11	0.008	0.000	0.189	0.196	0.001	0.000	0.019
33	0.000	0.000	1.000	0	0	13	0.000	0.000	0.232	0.232	0.000	0.000	0.024
34	0.000	0.000	1.000	0	0	6	0.000	0.000	0.107	0.107	0.000	0.000	0.011
35	0.000	0.000	1.000	0	0	3	0.000	0.000	0.054	0.054	0.000	0.000	0.006
36	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total				281	112	351	3.487	1.369	4.820	9.677			
Proportion				0.378	0.150	0.472		Proportion of run			0.360	0.141	0.498
Set gillnet													
26	0.586	0.255	0.159	329	143	89	1.522	0.662	0.413	2.597	0.094	0.041	0.025
27	0.512	0.232	0.256	485	220	243	2.019	0.916	1.011	3.946	0.124	0.056	0.062
28	0.420	0.177	0.402	269	114	258	1.123	0.474	1.075	2.671	0.069	0.029	0.066
29	0.279	0.082	0.639	208	61	477	0.867	0.255	1.986	3.108	0.053	0.016	0.122
30	0.180	0.040	0.780	58	13	251	0.302	0.066	1.309	1.677	0.019	0.004	0.081
31	0.098	0.000	0.902	20	0	179	0.148	0.000	1.360	1.508	0.009	0.000	0.084
32	0.039	0.000	0.961	3	0	62	0.013	0.000	0.325	0.339	0.001	0.000	0.020
33	0.000	0.000	1.000	0	0	20	0.000	0.000	0.119	0.119	0.000	0.000	0.007
34	0.000	0.000	1.000	0	0	14	0.000	0.000	0.083	0.083	0.000	0.000	0.005
35	0.000	0.000	1.000	0	0	5	0.000	0.000	0.032	0.032	0.000	0.000	0.002
36	0.000	0.000	1.000	0	0	5	0.000	0.000	0.032	0.032	0.000	0.000	0.002
37	0.000	0.000	1.000	0	0	2	0.000	0.000	0.014	0.014	0.000	0.000	0.001
38	0.000	0.000	1.000	0	0	3	0.000	0.000	0.023	0.023	0.000	0.000	0.001
39	0.000	0.000	1.000	0	0	4	0.000	0.000	0.031	0.031	0.000	0.000	0.002
40	0.000	0.000	1.000	0	0	3	0.000	0.000	0.024	0.024	0.000	0.000	0.001
41	0.000	0.000	1.000	0	0	2	0.000	0.000	0.016	0.016	0.000	0.000	0.001
42	0.000	0.000	1.000	0	0	1	0.000	0.000	0.010	0.010	0.000	0.000	0.001
Total				1,371	550	1,619	5.995	2.373	7.863	16.231			
Proportion				0.387	0.155	0.457					0.369	0.146	0.484

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	Proportions			Catch			CPUE				Migratory Timing		
Week	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Total	Tahltan	Tuya	Mainstem
Additional Drifts													
19	0.592	0.256	0.152	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.592	0.256	0.152	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.592	0.256	0.152	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.592	0.256	0.152	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.592	0.256	0.152	8	3	2	0.033	0.014	0.009	0.056	0.065	0.028	0.017
24	0.592	0.256	0.152	21	9	5	0.086	0.037	0.022	0.146	0.168	0.073	0.043
25	0.592	0.256	0.152	45	19	12	0.164	0.071	0.042	0.277	0.320	0.139	0.082
37	0.000	0.000	1.000	0	0	1	0.000	0.000	0.011	0.011	0.000	0.000	0.022
38	0.000	0.000	1.000	0	0	1	0.000	0.000	0.011	0.011	0.000	0.000	0.022
39	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	1.000	0	0	1	0.000	0.000	0.011	0.011	0.000	0.000	0.022
42	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total				74	32	22	0.284	0.123	0.106	0.512			
Proportion				0.578	0.250	0.172					0.554	0.239	0.207
Total Test Fishery Catches							Tahltan						
19	0.592	0.256	0.152	0	0	0	0.473	0.116	0	0			
20	0.592	0.256	0.152	0	0	0	0.473	0.116	0	0			
21	0.592	0.256	0.152	0	0	0	0.473	0.116	0	0			
22	0.592	0.256	0.152	0	0	0	0.473	0.116	0	0			
23	0.592	0.256	0.152	8	3	2	0.473	0.116	6	2			
24	0.592	0.256	0.152	21	9	5	0.473	0.116	17	4			
25	0.592	0.256	0.152	45	19	12	0.473	0.116	36	9			
26	0.586	0.255	0.159	398	173	108	0.473	0.116	319	79			
27	0.512	0.232	0.256	571	259	286	0.315	0.182	368	203			
28	0.420	0.177	0.402	327	138	313	0.333	0.116	237	90			
29	0.279	0.082	0.639	258	76	591	0.141	0.025	235	23			
30	0.180	0.040	0.780	73	16	316	0.012	0.050	53	20			
31	0.098	0.000	0.902	22	0	202	0.025	0.000	22	0			
32	0.039	0.000	0.961	3	0	73	0.012	0.000	3	0			
33	0.000	0.000	1.000	0	0	33	0.000	0.000	0	0			
34	0.000	0.000	1.000	0	0	20	0.000	0.000	0	0			
35	0.000	0.000	1.000	0	0	8	0.000	0.000	0	0			
36	0.000	0.000	1.000	0	0	5	0.000	0.000	0	0			
37	0.000	0.000	1.000	0	0	3	0.000	0.000	0	0			
38	0.000	0.000	1.000	0	0	4	0.000	0.000	0	0			
39	0.000	0.000	1.000	0	0	4	0.000	0.000	0	0			
40	0.000	0.000	1.000	0	0	3	0.000	0.000	0	0			
41	0.000	0.000	1.000	0	0	3	0.000	0.000	0	0			
42	0.000	0.000	1.000	0	0	1	0.000	0.000	0	0			
Total				1,726	694	1,992			1296	430			
Proportion				0.391	0.157	0.451							

Appendix A. 17. Daily counts of adult sockeye salmon passing through Tahltan Lake weir, 2002.

		Cumulative				Cumulative	
Date	Count	Count	Percent	Date	Count	Count	Percent
7-Jul	0	0	0.0	11-Aug	207	16,799	94.7
8-Jul	0	0	0.0	12-Aug	130	16,929	95.4
9-Jul	0	0	0.0	13-Aug	202	17,131	96.6
10-Jul	0	0	0.0	14-Aug	14	17,145	96.6
11-Jul	0	0	0.0	15-Aug	43	17,188	96.9
12-Jul	5	5	0.0	16-Aug	63	17,251	97.2
13-Jul	9	14	0.1	17-Aug	64	17,315	97.6
14-Jul	0	14	0.1	18-Aug	28	17,343	97.8
15-Jul	588	602	3.4	19-Aug	41	17,384	98.0
16-Jul	1,045	1,647	9.3	20-Aug	22	17,406	98.1
17-Jul	383	2,030	11.4	21-Aug	13	17,419	98.2
18-Jul	537	2,567	14.5	22-Aug	30	17,449	98.4
19-Jul	857	3,424	19.3	23-Aug	44	17,493	98.6
20-Jul	1,888	5,312	29.9	24-Aug	73	17,566	99.0
21-Jul	1,018	6,330	35.7	25-Aug	17	17,583	99.1
22-Jul	513	6,843	38.6	26-Aug	13	17,596	99.2
23-Jul	271	7,114	40.1	27-Aug	11	17,607	99.3
24-Jul	1,285	8,399	47.3	28-Aug	7	17,614	99.3
25-Jul	702	9,101	51.3	29-Aug	3	17,617	99.3
26-Jul	542	9,643	54.4	30-Aug	0	17,617	99.3
27-Jul	1,129	10,772	60.7	31-Aug	0	17,617	99.3
28-Jul	633	11,405	64.3	1-Sep	3	17,620	99.3
29-Jul	635	12,040	67.9	2-Sep	12	17,632	99.4
30-Jul	757	12,797	72.1	3-Sep	7	17,639	99.4
31-Jul	647	13,444	75.8	4-Sep	0	17,639	99.4
1-Aug	383	13,827	77.9	5-Sep	4	17,643	99.5
2-Aug	610	14,437	81.4	6-Sep	8	17,651	99.5
3-Aug	209	14,646	82.6	7-Sep	2	17,653	99.5
4-Aug	421	15,067	84.9	8-Sep	14	17,667	99.6
5-Aug	343	15,410	86.9	9-Sep	8	17,675	99.6
6-Aug	219	15,629	88.1	10-Sep	8	17,683	99.7
7-Aug	252	15,881	89.5	11-Sep	0	17,683	99.7
8-Aug	348	16,229	91.5	12-Sep	0	17,683	99.7
9-Aug	220	16,449	92.7	13-Sep	7	17,690	99.7
10-Aug	143	16,592	93.5	14-Sep	50	17,740	100.0

		Hatchery	Wild	Total
Total Counted				17,740
Fish removed for broodstock	female			-1,538
	male			-1,513
	rejects			-69
Total fish removed for broodstock				-3,120
Fish removed for otolith samples		-115	-285	-400
Total Spawners		3,799	10,490	14,289

Appendix A. 18. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 2002.

		Cumulative				Cumulative	
Date	Count	Count	Percent	Date	Count	Count	Percent
6-May	0	0	0.0	4-Jun	9,813	1,241,463	66.3
7-May	0	0	0.0	5-Jun	130,970	1,372,433	73.3
8-May	0	0	0.0	6-Jun	28,859	1,401,292	74.8
9-May	0	0	0.0	7-Jun	3,853	1,405,145	75.0
10-May	0	0	0.0	8-Jun	4,762	1,409,907	75.3
11-May	0	0	0.0	9-Jun	1,527	1,411,434	75.3
12-May	0	0	0.0	10-Jun	55,800	1,467,234	78.3
13-May	0	0	0.0	11-Jun	115,318	1,582,552	84.5
14-May	1	1	0.0	12-Jun	191,428	1,773,980	94.7
15-May	2	3	0.0	13-Jun	11,214	1,785,194	95.3
16-May	517	520	0.0	14-Jun	45,051	1,830,245	97.7
17-May	321	841	0.0	15-Jun	11,642	1,841,887	98.3
18-May	585	1,426	0.1	16-Jun	17,761	1,859,648	99.3
19-May	153,711	155,137	8.3	17-Jun	10,456	1,870,104	99.8
20-May	481,316	636,453	34.0	18-Jun	2,112	1,872,216	99.9
21-May	2,398	638,851	34.1	19-Jun	677	1,872,893	100.0
22-May	39,141	677,992	36.2	20-Jun	705	1,873,598	100.0
23-May	55,945	733,937	39.2				
24-May	92,850	826,787	44.1				
25-May	2,881	829,668	44.3				
26-May	1,804	831,472	44.4				
27-May	187,559	1,019,031	54.4				
28-May	1,052	1,020,083	54.4				
29-May	4,274	1,024,357	54.7				
30-May	130,805	1,155,162	61.7				
31-May	1,458	1,156,620	61.7				
1-Jun	73,506	1,230,126	65.7				
2-Jun	893	1,231,019	65.7	Wild		1,042,435	
3-Jun	631	1,231,650	65.7	Hatchery		831,163	
Total						1,873,598	

Appendix A. 19. Daily counts of adult Chinook salmon passing through Little Tahltan weir, 2002.

	Large Chinook			Chinook non large		
		Cumulative			Cumulative	
Date	Count	Count	Percent	Count	Count	Percent
20-Jun	0	0	0.0	0	0	0.0
21-Jun	0	0	0.0	0	0	0.0
22-Jun	0	0	0.0	0	0	0.0
23-Jun	2	2	0.0	0	0	0.0
24-Jun	4	6	0.1	0	0	0.0
25-Jun	2	8	0.1	0	0	0.0
26-Jun	3	11	0.1	1	1	0.2
27-Jun	40	51	0.7	0	1	0.2
28-Jun	64	115	1.5	0	1	0.2
29-Jun	6	121	1.6	0	1	0.2
30-Jun	75	196	2.6	0	1	0.2
1-Jul	33	229	3.1	1	2	0.3
2-Jul	24	253	3.4	0	2	0.3
3-Jul	0	253	3.4	0	2	0.3
4-Jul	23	276	3.7	1	3	0.5
5-Jul	115	391	5.2	1	4	0.6
6-Jul	158	549	7.3	2	6	1.0
7-Jul	178	727	9.7	3	9	1.5
8-Jul	352	1,079	14.4	17	26	4.2
9-Jul	926	2,005	26.8	35	61	9.9
10-Jul	420	2,425	32.4	25	86	13.9
11-Jul	71	2,496	33.3	0	86	13.9
12-Jul	15	2,511	33.5	0	86	13.9
13-Jul	350	2,861	38.2	14	100	16.2
14-Jul	217	3,078	41.1	22	122	19.7
15-Jul	261	3,339	44.6	33	155	25.1
16-Jul	131	3,470	46.3	11	166	26.9
17-Jul	161	3,631	48.5	29	195	31.6
18-Jul	1,012	4,643	62.0	58	253	40.9
19-Jul	250	4,893	65.3	25	278	45.0
20-Jul	290	5,183	69.2	26	304	49.2
21-Jul	111	5,294	70.7	12	316	51.1
22-Jul	413	5,707	76.2	48	364	58.9
23-Jul	474	6,181	82.5	39	403	65.2
24-Jul	220	6,401	85.5	22	425	68.8
25-Jul	217	6,618	88.4	30	455	73.6
26-Jul	63	6,681	89.2	4	459	74.3
27-Jul	110	6,791	90.7	17	476	77.0
28-Jul	70	6,861	91.6	5	481	77.8
29-Jul	69	6,930	92.5	15	496	80.3
30-Jul	63	6,993	93.4	4	500	80.9
31-Jul	77	7,070	94.4	15	515	83.3
1-Aug	68	7,138	95.3	7	522	84.5
2-Aug	53	7,191	96.0	3	525	85.0
3-Aug	57	7,248	96.8	8	533	86.2
4-Aug	37	7,285	97.3	6	539	87.2
5-Aug	12	7,297	97.4	0	539	87.2
6-Aug	22	7,319	97.7	4	543	87.9
7-Aug	85	7,404	98.9	35	578	93.5
8-Aug	19	7,423	99.1	8	586	94.8
9-Aug	38	7,461	99.6	20	606	98.1
10-Aug	18	7,479	99.9	6	612	99.0
11-Aug	8	7,487	100.0	5	617	99.8
12-Aug	3	7,490	100.0	1	618	100.0
13-Aug	0	7,490	100.0	0	618	100.0
14-Aug	0	7,490	100.0	0	618	100.0
15-Aug	0	7,490	100.0	0	618	100.0
16-Aug	0	7,490	100.0	0	618	100.0
17-Aug	0	7,490	100.0	0	618	100.0
18-Aug	0	7,490	100.0	0	618	100.0
19-Aug	0	7,490	100.0	0	618	100.0
20-Aug	0	7,490	100.0	0	618	100.0
Total Counted		7,490			618	
Broodstock		-14 females				
Escapement		7,476			618	

Appendix B. 1. Salmon catch and effort in the Alaskan District 106 commercial drift gillnet fisheries, 1960-2002.

	Catch						Effort	
	Chinook						Permit	Days
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Open
1960	46		10,354	336	1,246	502	369	17
1961	416		20,614	14,934	124,236	64,479	1,737	57
1962	1,308		47,033	42,276	256,620	59,119	4,693	52
1963	1,560		80,767	52,103	514,596	90,103	5,589	51
1964	2,082		76,541	64,654	443,086	44,218	5,383	49
1965	1,802		87,749	75,728	625,848	27,658	4,507	51
1966	1,665		89,847	62,823	400,932	40,756	4,978	74
1967	1,318		86,385	17,670	91,609	26,370	2,511	27
1968	1,316		64,671	67,151	169,107	61,366	4,965	52
1969	877		70,318	10,280	197,073	10,903	2,112	31
1970	785		42,778	35,470	94,892	32,231	1,863	41
1971	1,336		53,202	48,085	527,975	37,680	2,774	47
1972	2,573		101,338	93,427	89,467	72,382	3,321	41
1973	1,931		71,995	38,447	303,621	87,729	3,300	26
1974	1,926		57,346	45,651	104,403	50,309	2,179	28
1975	2,587		32,051	30,962	203,015	23,968	1,649	18
1976	384		15,481	19,126	139,439	6,868	827	22
1977	671		67,023	8,401	419,107	13,300	1,381	28
1978	274		41,574	55,578	224,715	16,545	1,510	27
1979	2,720		66,373	28,083	648,212	35,507	2,703	31
1980	580		107,422	16,666	45,662	26,291	1,324	25
1981	1,565		182,001	22,614	437,573	34,296	2,926	26
1982	1,648		193,798	31,481	25,533	18,646	1,700	23
1983	567		48,842	62,442	208,290	20,144	1,453	31
1984	892		91,653	41,359	343,255	70,258	1,890	31
1985	1,687		264,987	91,188	584,953	69,673	2,673	31
1986	1,704		145,709	194,912	308,484	82,289	3,510	31
1987	836		136,427	34,534	243,482	42,025	1,767	20
1988	1,104		92,529	13,103	69,559	69,620	1,495	19
1989	1,544		192,734	92,385	1,101,194	67,351	3,222	34
1990	2,108		185,805	164,235	319,186	73,232	3,502	34
1991	2,055		144,104	198,160	133,566	124,630	3,620	39
1992	1,355		203,155	298,935	94,248	140,468	4,230	40
1993	992		205,955	231,038	537,960	134,601	4,353	38
1994	754		211,048	267,862	179,994	176,026	4,468	43
1995	951		207,298	170,561	448,163	300,078	3,657	34
1996	644		311,100	223,640	188,035	283,290	5,290	46
1997	1,075		168,518	77,550	789,051	186,456	3,668	39
1998	518		113,435	273,197	502,655	332,022	4,398	43
1999	518		104,878	203,262	490,716	448,367	4,943	50
2000	1,220		90,076	96,207	156,619	199,836	2,409	33
2001	1,057		164,013	188,465	825,330	282,910	3,854	50
Averages								
60-01	1,318		113,070	90,595	324,112	94,869	3,064	36.4
92-01	908		177,948	203,072	421,277	248,405	4,127	41.6
2002	446		56,135	226,560	82,951	112,541	2,684	47.0

Alaska Hatchery Contributions of Large Chinook and Coho salmon

	Large Chinnok		Coho	
	Hatchery	Wild	Hatchery	Wild
1989	512	1,032	5,029	87,356
1990	1,009	1,099	50,354	113,881
1991	608	1,447	64,067	134,093
1992	658	697	112,824	186,111
1993	305	687	77,914	153,124
1994	402	352	36,805	231,057
1995	353	598	27,333	143,228
1996	324	320	55,218	168,422
1997	369	706	19,479	58,071
1998	290	228	101,129	172,068
1999	189	329	82,828	120,434
2000	790	430	48,169	48,038
2001	446	611	67,378	121,087
Averages				
89-01	481	657	1,510	133,613
2002	161	285	78,485	148,075

Appendix B. 2. Stock proportions and catches of sockeye salmon in the Alaskan District 106 commercial drift gillnet fisheries, 1982-2002.

Catches do not include Blind Slough terminal area harvest. Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Wild	Planted
Proportions								
1982	0.486	0.319				0.194		
1983	0.668	0.217	0.103		0.013	0.116		
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.479	0.419	0.091		0.011	0.102		
1986	0.689	0.293	0.014		0.004	0.018		
1987	0.827	0.155	0.010		0.007	0.017		
1988	0.874	0.106	0.020		0.001	0.020		
1989	0.657	0.311	0.006		0.026	0.032		
1990	0.608	0.371	0.005		0.016	0.021		
1991	0.545	0.331	0.100		0.024	0.124		
1992	0.595	0.232	0.070		0.102	0.172		
1993	0.400	0.338	0.098		0.164	0.262		
1994	0.579	0.254	0.142		0.025	0.167	0.108	0.033
1995	0.316	0.560	0.081	0.001	0.043	0.124	0.044	0.036
1996	0.531	0.268	0.166	0.028	0.007	0.201	0.147	0.019
1997	0.576	0.271	0.058	0.079	0.016	0.153	0.037	0.021
1998	0.598	0.307	0.015	0.080	0.000	0.095	0.013	0.002
1999	0.671	0.092	0.057	0.061	0.118	0.237	0.054	0.003
2000	0.643	0.233	0.020	0.085	0.019	0.124	0.017	0.003
2001	0.525	0.332	0.039	0.079	0.025	0.143	0.029	0.010
Averages								
83-01	0.602	0.282	0.059		0.035	0.116		
92-01	0.543	0.289	0.074	0.059	0.052	0.168	0.056	0.016
2002	0.758	0.098	0.037	0.072	0.035	0.144	0.024	0.012
Catches								
1982	94,275	61,853				37,670		
1983	32,603	10,589	5,020		631	5,650		
1984	60,278	24,624	2,673		4,078	6,751		
1985	126,914	111,015	24,045		3,013	27,058		
1986	100,337	42,685	2,081		606	2,687		
1987	112,893	21,190	1,376		968	2,344		
1988	80,868	9,784	1,813		64	1,877		
1989	126,603	59,959	1,111		5,061	6,172		
1990	112,983	68,921	915		2,986	3,901		
1991	78,533	47,707	14,364		3,501	17,864		
1992	120,977	47,207	14,187		20,784	34,971		
1993	82,300	69,617	20,204		33,833	54,037		
1994	122,118	53,683	29,876		5,371	35,247	22,857	7,019
1995	65,544	116,075	16,715	125	8,839	25,679	9,182	7,533
1996	165,221	83,271	51,598	8,821	2,189	62,608	45,826	5,772
1997	97,101	45,665	9,764	13,232	2,756	25,752	6,281	3,483
1998	67,890	34,811	1,678	9,020	36	10,734	1,477	201
1999	70,363	9,696	5,988	6,427	12,404	24,819	5,700	288
2000	57,935	20,996	1,827	7,612	1,706	11,145	1,573	254
2001	86,078	54,512	6,339	12,965	4,119	23,423	4,747	1,592
Averages								
83-01	93,028	49,053	11,135		5,944	20,143		
92-01	93,553	53,553	15,818	8,315	9,204	30,842	12,205	3,268
2002	42,573	5,487	2,055	4,058	1,962	8,075	1,375	680

Appendix B. 3. Salmon catch and effort in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1960-2002.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1960	24	9,005	277	1,103	362	251	17
1961	75	9,488	1,851	26,435	9,657	359	48
1962	131	19,692	6,548	45,987	9,544	811	44
1963	310	45,305	15,727	135,503	50,380	2,311	47
1964	316	52,943	27,338	183,402	22,913	2,344	49
1965	679	58,736	30,570	162,271	15,763	1,658	51
1966	690	65,721	30,792	96,287	24,235	2,080	74
1967	668	60,148	10,573	52,284	19,626	1,463	27
1968	1,010	50,212	46,111	82,012	39,001	2,997	52
1969	607	46,258	6,094	92,075	6,393	1,147	31
1970	420	26,812	15,153	29,102	18,092	905	41
1971	671	33,991	24,727	283,739	19,329	1,619	50
1972	1,747	74,745	60,827	40,644	46,511	2,152	41
1973	1,540	55,254	24,921	160,297	62,486	2,253	26
1974	1,342	46,760	28,889	57,296	38,045	1,579	28
1975	467	19,319	4,650	29,340	7,762	515	17
1976	237	9,319	10,367	20,251	2,301	366	19
1977	202	47,408	1,819	51,038	4,240	447	17
1978	274	1,422	26,762	9,546	3,142	389	27
1979	458	34,807	12,087	176,395	16,816	952	25
1980	205	48,434	10,894	17,068	15,176	596	16
1981	598	132,293	13,161	220,194	25,682	1,732	25
1982	648	121,563	21,193	10,392	11,891	1,083	22
1983	268	28,153	41,208	74,347	13,001	875	32
1984	136	27,372	19,124	99,807	28,461	587	32
1985	538	172,088	50,577	319,379	45,566	1,726	38
1986	421	85,247	104,328	105,347	48,471	1,896	32
1987	441	79,165	17,776	117,059	25,877	978	20
1988	452	57,337	6,349	10,894	42,210	815	18
1989	581	107,886	55,671	418,044	40,156	1,716	34
1990	759	104,922	94,526	84,543	42,474	1,827	34
1991	844	89,355	136,990	64,334	85,435	2,118	39
1992	743	146,608	190,885	38,483	100,666	2,630	40
1993	458	129,859	134,902	296,986	96,995	2,728	38
1994	456	157,526	191,695	66,225	125,826	2,988	43
1995	663	133,713	109,613	154,004	189,369	2,349	34
1996	487	223,784	159,319	70,620	162,872	3,623	46
1997	829	118,675	52,917	414,619	100,612	2,402	39
1998	334	79,052	175,124	196,403	200,892	2,999	43
1999	397	73,378	130,083	277,194	284,807	3,294	50
2000	558	57,863	54,232	80,014	120,111	1,522	33
2001	516	99,219	133,956	345,385	168,265	2,406	50
Averages							
60-01	552	72,401	54,538	124,199	56,938	1,654	35.4
92-01	544	121,968	133,273	193,993	155,042	2,694	41.6
2002	216	39,030	163,727	41,086	71,333	1,844	47

Appendix B. 4. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1985-2002.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Wild	Planted
Proportions								
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.662	0.308	0.024		0.006	0.030		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.112	0.019		0.001	0.020		
1989	0.653	0.303	0.009		0.036	0.044		
1990	0.579	0.395	0.008		0.018	0.026		
1991	0.460	0.377	0.129		0.034	0.163		
1992	0.582	0.241	0.088		0.089	0.177		
1993	0.369	0.327	0.134		0.169	0.304		
1994	0.531	0.271	0.166		0.032	0.198	0.127	0.040
1995	0.287	0.565	0.099	0.001	0.048	0.149	0.049	0.051
1996	0.479	0.245	0.228	0.039	0.009	0.276	0.203	0.025
1997	0.538	0.269	0.079	0.101	0.014	0.193	0.056	0.023
1998	0.550	0.337	0.017	0.096	0.000	0.113	0.014	0.003
1999	0.618	0.101	0.074	0.079	0.128	0.281	0.070	0.004
2000	0.611	0.223	0.028	0.116	0.023	0.167	0.024	0.004
2001	0.493	0.336	0.032	0.112	0.028	0.171	0.017	0.015
Averages								
85-01	0.563	0.293	0.074	0.078	0.038	0.144		
92-01	0.506	0.291	0.094	0.078	0.054	0.203	0.070	0.020
2002	0.730	0.101	0.049	0.087	0.034	0.169	0.031	0.017
Catches								
1985	82,563	68,962	18,801		1,762	20,563		
1986	56,462	26,214	2,070		501	2,571		
1987	64,582	13,170	1,155		258	1,413		
1988	49,776	6,426	1,071		64	1,135		
1989	70,436	32,663	957		3,830	4,787		
1990	60,795	41,415	801		1,911	2,712		
1991	41,123	33,644	11,541		3,048	14,588		
1992	85,364	35,277	12,961		13,005	25,967		
1993	47,970	42,450	17,446		21,992	39,438		
1994	83,692	42,620	26,164		5,050	31,214	19,934	6,230
1995	38,343	75,505	13,292	125	6,448	19,865	6,514	6,778
1996	107,193	54,823	50,924	8,731	2,113	61,768	45,340	5,584
1997	63,827	31,892	9,327	11,937	1,692	22,956	6,594	2,733
1998	43,479	26,661	1,326	7,555	31	8,912	1,125	201
1999	45,335	7,420	5,425	5,786	9,412	20,623	5,159	266
2000	35,327	12,875	1,617	6,727	1,317	9,661	1,363	254
2001	48,906	33,309	3,164	11,063	2,777	17,004	1,723	1,441
Averages								
85-01	60,304	34,431	10,473	7,418	4,424	17,952		
92-01	59,944	36,283	14,165	7,418	6,384	25,741	10,969	2,936
2002	28,487	3,928	1,896	3,394	1,325	6,615	1,216	680

Appendix B. 5. Salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1960-2002.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1960	22	1,349	59	143	140	118	13
1961	341	11,126	13,083	97,801	54,822	1,378	57
1962	1,177	27,341	35,728	210,633	49,575	3,882	52
1963	1,250	35,462	36,376	379,093	39,723	3,278	51
1964	1,766	23,598	37,316	259,684	21,305	3,039	49
1965	1,123	29,013	45,158	463,577	11,895	2,849	51
1966	975	24,126	32,031	304,645	16,521	2,898	74
1967	650	26,237	7,097	39,325	6,744	1,048	27
1968	306	14,459	21,040	87,095	22,365	1,968	52
1969	270	24,060	4,186	104,998	4,510	1,026	31
1970	365	15,966	20,317	65,790	14,139	1,025	41
1971	665	19,211	23,358	244,236	18,351	1,517	50
1972	826	26,593	32,600	48,823	25,871	1,276	41
1973	391	16,741	13,526	143,324	25,243	1,303	26
1974	584	10,586	16,762	47,107	12,264	712	28
1975	2,120	12,732	26,312	173,675	16,206	1,159	9
1976	147	6,162	8,759	119,188	4,567	527	21
1977	469	19,615	6,582	368,069	9,060	940	21
1978		40,152	28,816	215,169	13,403	1,148	16
1979	2,262	31,566	15,996	471,817	18,691	1,848	25
1980	375	58,988	5,772	28,594	11,115	749	25
1981	967	49,708	9,453	217,379	8,614	1,321	26
1982	1,000	72,235	10,288	15,141	6,755	647	21
1983	299	20,689	21,234	133,943	7,143	589	37
1984	756	64,281	22,235	243,448	41,797	1,236	24
1985	1,149	92,899	40,611	265,574	24,107	1,372	36
1986	1,283	60,462	90,584	203,137	33,818	1,664	31
1987	395	57,262	16,758	126,423	16,148	799	20
1988	652	35,192	6,754	58,665	27,410	682	19
1989	963	84,848	36,714	683,150	27,195	1,583	34
1990	1,349	80,883	69,709	234,643	30,758	1,676	34
1991	1,211	54,749	61,170	69,232	39,195	1,505	39
1992	612	56,547	108,050	55,765	39,802	1,603	40
1993	534	76,096	96,136	240,974	37,606	1,646	38
1994	298	53,522	76,167	113,769	50,200	1,606	43
1995	288	73,585	60,948	294,159	110,709	1,422	34
1996	157	87,316	64,321	117,415	120,418	1,580	39
1997	246	49,843	24,633	374,432	85,844	1,329	38
1998	184	34,383	98,073	306,252	131,130	1,522	43
1999	121	31,500	73,179	213,522	163,560	1,766	49
2000	662	32,213	41,975	76,605	79,725	934	33
2001	541	64,794	54,509	479,945	114,645	1,573	50
Averages							
60-01	766	40,669	36,057	199,913	37,931	1,470	35.4
92-01	364	55,980	69,799	227,284	93,364	1,498	40.7
2002	230	17,105	62,833	41,865	41,208	896	47.0

Appendix B. 6. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1985-2002.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Wild	Planted
Proportions								
1985	0.477	0.453	0.056		0.013	0.070		
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.883	0.095	0.021		0.000	0.021		
1989	0.662	0.322	0.002		0.015	0.016		
1990	0.645	0.340	0.001		0.013	0.015		
1991	0.683	0.257	0.052		0.008	0.060		
1992	0.630	0.211	0.022		0.138	0.159		
1993	0.451	0.357	0.036		0.156	0.192		
1994	0.718	0.207	0.069		0.006	0.075	0.055	0.015
1995	0.370	0.551	0.047	0.000	0.032	0.079	0.036	0.010
1996	0.665	0.326	0.008	0.001	0.001	0.010	0.006	0.002
1997	0.668	0.276	0.009	0.026	0.021	0.056	-0.006	0.015
1998	0.710	0.237	0.010	0.043	0.000	0.053	0.010	0.000
1999	0.795	0.072	0.018	0.020	0.095	0.133	0.017	0.001
2000	0.702	0.252	0.007	0.027	0.012	0.046	0.007	0.000
2001	0.574	0.327	0.049	0.029	0.021	0.099	0.047	0.002
Average								
85-01	0.659	0.276	0.024	0.021	0.032	0.065		
92-01	0.628	0.282	0.027	0.021	0.048	0.090	0.021	0.006
2002	0.824	0.091	0.009	0.039	0.037	0.085	0.009	0.000
Catch								
1985	44,351	42,053	5,244		1,251	6,495		
1986	43,875	16,471	11		105	116		
1987	48,311	8,020	221		710	931		
1988	31,092	3,358	742		0	742		
1989	56,167	27,296	154		1,231	1,385		
1990	52,188	27,506	114		1,075	1,189		
1991	37,410	14,063	2,823		453	3,277		
1992	35,613	11,930	1,226		7,778	9,004		
1993	34,330	27,167	2,758		11,841	14,599		
1994	38,426	11,063	3,712		321	4,033	2,923	789
1995	27,201	40,570	3,423	0	2,391	5,814	2,668	755
1996	58,028	28,448	674	90	76	840	486	188
1997	33,274	13,773	437	1,295	1,064	2,796	-313	750
1998	24,411	8,150	352	1,465	5	1,822	352	0
1999	25,028	2,276	563	641	2,992	4,196	541	22
2000	22,608	8,121	210	885	389	1,484	210	0
2001	37,172	21,203	3,175	1,902	1,342	6,419	3,024	151
Average								
85-01	38,205	18,322	1,520		1,943	3,832		
92-01	33,609	17,270	1,653	897	2,820	5,101	1,236	332
2002	14,086	1,559	159	664	637	1,460	159	0

Appendix B. 7. Salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 1960-2002.

Permit days are adjusted for boats which did not fish the entire opening and may total less than the sum of the permits times days open.

	Catch						Effort	
	Chinook						Permit	Days
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Open
1962	618		4,430	3,921	2,889	2,035		27
1963	1,430		9,979	11,612	10,198	11,024		53
1964	2,911		20,299	29,388	114,555	10,771		62
1965	3,106		21,419	8,301	4,729	2,480		48
1966	4,516		36,710	16,493	61,908	17,730		62
1967	6,372		29,226	6,747	4,713	5,955		40
1968	4,604		14,594	36,407	91,028	14,537		61
1969	5,021		19,209	5,790	11,877	2,311	967	46
1970	3,207		15,120	18,403	20,523	12,305	1,222	51
1971	3,717		18,143	14,876	21,806	4,665	1,070	57
1972	9,332		51,734	38,520	17,153	17,363	2,095	64
1973	9,254		21,387	5,837	6,585	6,680	1,519	39
1974	8,199		2,428	16,021	4,188	2,107	1,178	29
1975	1,534		0	0	0	1	258	8
1976	1,123		18	6,056	722	124	372	19
1977	1,443		48,374	14,405	16,253	4,233	742	23
1978	531		56	32,650	1,157	1,001	565	12
1979	91		2,158	234	13,478	1,064	94	5
1980	631		14,053	2,946	7,224	6,910	327	22
1981	283		8,833	1,403	1,466	3,594	177	9
1982	1,033		6,911	19,971	16,988	741	494	21
1983	47		178	15,369	4,171	675	263	17
1984	14		1,290	5,141	4,960	1,892	56	9
1985	20		1,060	1,926	5,325	1,892	70	14
1986	102		4,185	7,439	4,901	5,928	246	25
1987	149		1,629	1,015	3,343	949	81	13
1988	206		1,246	12	144	3,109	66	8
1989	310		10,083	4,261	27,640	3,375	216	28
1990	557		11,574	8,218	13,822	9,382	359	34
1991	1,504		22,275	15,864	10,935	11,402	643	49
1992	967		52,717	22,127	66,742	15,458	1,246	51
1993	1,628		76,874	14,307	39,661	22,504	1,569	48
1994	1,996		97,224	44,891	35,405	27,658	2,199	57
1995	1,702		76,756	17,834	37,788	54,296	1,729	50
1996	1,717		154,150	19,059	37,651	135,623	2,396	57
1997	2,566		93,039	2,140	65,745	38,913	1,699	44
1998	460		22,031	19,206	39,246	41,057	947	45
1999	1,049		36,548	28,437	48,550	117,196	1,675	54
2000	1,671		15,833	5,651	9,497	40,337	606	35
2001	7		610	10,731	11,012	5,397	377	36
Averages								
60-01	2,141		25,610	13,340	22,399	16,617	860	35.7
92-01	1,376		62,578	18,438	39,130	49,844	1,484	47.6
2002	25		208	21,131	4,578	2,017	323	35.0

Appendix B.7. Page 2 of 2.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Wild	Planted
1985	0.064	0.000	0.292		0.644	0.936		
1986	0.206	0.017	0.094		0.683	0.777		
1987[a]	0.125	0.000	0.438		0.437	0.875		
1988	0.213	0.039	0.178		0.571	0.749		
1989	0.117	0.054	0.034		0.795	0.829		
1990	0.395	0.128	0.111		0.366	0.477		
1991	0.173	0.118	0.395		0.314	0.709		
1992	0.163	0.051	0.258		0.528	0.786		
1993	0.231	0.114	0.256		0.399	0.655		
1994	0.326	0.208	0.362		0.103	0.466	0.246	0.116
1995	0.135	0.204	0.455	0.006	0.200	0.661	0.198	0.257
1996	0.102	0.082	0.622	0.069	0.125	0.816	0.552	0.070
1997	0.058	0.131	0.362	0.261	0.189	0.812	0.260	0.102
1998	0.115	0.108	0.189	0.244	0.343	0.777	0.182	0.008
1999	0.144	0.036	0.414	0.201	0.205	0.820	0.390	0.024
2000	0.204	0.128	0.132	0.261	0.275	0.669	0.100	0.032
2001	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000
Averages								
85-09	0.213	0.098	0.302	0.122	0.315	0.690	0.210	0.133
00-09	0.275	0.115	0.308	0.105	0.196	0.609	0.154	0.155
2010	0.067	0.067	0.475	0.216	0.174	0.865	0.332	0.142
Catch								
1985	68	0	310		683	992		
1986	862	71	393		2,858	3,252		
1987	204	0	714		712	1,425		
1988	265	48	222		711	933		
1989	1,180	545	341		8,017	8,358		
1990	4,576	1,479	1,280		4,239	5,519		
1991	3,859	2,622	8,807		6,987	15,794		
1992	8,604	2,696	13,599		27,818	41,417		
1993	17,758	8,742	19,688		30,686	50,374		
1994	31,715	20,250	35,222		10,037	45,259	23,936	11,286
1995	10,374	15,641	34,950	461	15,330	50,741	15,224	19,726
1996	15,755	12,618	95,837	10,621	19,319	125,777	85,041	10,796
1997	5,381	12,152	33,644	24,288	17,574	75,506	24,144	9,500
1998	2,541	2,376	4,170	5,383	7,561	17,114	4,000	170
1999	5,255	1,313	15,134	7,360	7,486	29,980	14,258	876
2000	3,226	2,019	2,097	4,138	4,353	10,588	1,591	506
2001	473	60	0	3	74	77	0	0
Averages								
85-01	6,594	4,861	15,671	7,465	9,673	28,418		
92-01	10,108	7,787	25,434	7,465	14,024	44,683	21,024	6,608
2002	182	25	0	0	1	1	0	0

[a] No data to separate Tahltan and Mainstem Stikine in 1987.

Appendix B. 8. Stock proportions and catches of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 1985-2002.

Table only includes years when test fisheries were operated.

	Catch						
	Chinook						Boat
Year	Large	non large	Sockeye	Coho	Pink	Chum	Hours
Sub-district 106-41 (Sumner Strait)							
1984	13		1,370	101	975	793	5.94
1985	16		4,345	301	3,230	746	6.51
1986	23		982	177	60	248	4.14
1987	24		2,659	799	4,117	741	21.17
1988	11		1,020	89	137	772	5.04
1989	11		2,043	275	6,069	856	2.51
1990	13		2,256	432	372	552	0.29
1994	0		12	1	0	16	0.46
Sub-district 106-30 (Clarence Strait)							
1986	24		363	95	80	58	0.97
1987	1		899	589	1,705	467	16.00
1988	10		16	412	112	598	4.99
1989	4		37	464	431	329	
Total District 106							
1984	13		1,370	101	975	793	5.94
1985	16		4,345	301	3,230	746	6.51
1986	47		1,345	272	140	306	5.11
1987	25		3,558	1,388	5,822	1,208	37.17
1988	21		1,036	501	249	1,370	10.03
1989	15		2,080	739	6,500	1,185	2.51
1990	13		2,256	432	372	552	0.29
1994	0		12	1	0	16	0.46
District 108							
1984	37		641	11	822	813	
1985	33		1,258	11	465	381	2.99
1986	79		564	3	36	315	3.01
1987	30		290	13	1,957	488	3.20
1988	65		451	9	1,091	1,009	5.28
1989	15		1,038	45	2,459	283	2.64
1990	19		866	45	942	643	0.29
1991	21		893	18	390	455	6.46
1992	26		1,299	23	855	252	3.29
1993	30		303	0	18	31	1.88
1998	0		3,510	142	61	235	1.88
1999	29		4,801	217	429	1,368	1.88
2000	21		4,686	140	53	724	

Appendix B. 9. Salmon catch in the Alaskan District 106 and 108 test fisheries, 1984-2002.

Table only includes years when test fisheries were operated and catches included sockeye salmon.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Wild	Planted
Sub-district 106-41 (Sumner Strait) Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.834	0.149	0.008		0.009	0.017		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.098	0.034		0.000	0.034		
1989	0.624	0.304	0.017		0.056	0.072		
1990	0.548	0.416	0.014		0.022	0.035		
1994	0.500	0.250	0.250		0.000	0.250	0.167	0.083
Sub-district 106-30 (Clarence Strait) Proportions								
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.746	0.254	0.000		0.000	0.000		
1989	0.514	0.486	0.000		0.000	0.000		
District 106 Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.805	0.182	0.006		0.007	0.013		
1987	0.823	0.160	0.012		0.006	0.017		
1988	0.867	0.100	0.033		0.000	0.033		
1989	0.622	0.307	0.016		0.055	0.071		
1990	0.548	0.416	0.014		0.022	0.035		
1994	0.500	0.250	0.250		0.000	0.250	0.250	0.000
District 108 Proportions								
1985	0.064	0.000	0.292		0.644	0.936		
1986	0.134	0.044	0.486		0.336	0.822		
1987	0.125	0.000	0.438		0.437	0.875		
1988	0.205	0.049	0.132		0.614	0.746		
1989	0.132	0.084	0.072		0.712	0.784		
1990	0.417	0.172	0.094		0.318	0.411		
1991	0.128	0.128	0.494		0.251	0.745		
1992	0.149	0.076	0.333		0.442	0.774		
1993	0.168	0.109	0.475		0.248	0.719		
1998	0.064	0.041	0.353	0.438	0.104	0.895	0.336	0.016
1999	0.162	0.019	0.481	0.298	0.041	0.820	0.453	0.028
2000	0.110	0.116	0.302	0.321	0.150	0.774	0.240	0.062

Appendix B. 10. Stock proportions of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2002.

Table only includes years when test fisheries were operated and catches included sockeye salmon.
Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Wild	Planted
Sub-district 106-41 (Sumner Strait) Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.834	0.149	0.008		0.009	0.017		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.098	0.034		0.000	0.034		
1989	0.624	0.304	0.017		0.056	0.072		
1990	0.548	0.416	0.014		0.022	0.035		
1994	0.500	0.250	0.250		0.000	0.250	0.167	0.083
Sub-district 106-30 (Clarence Strait) Proportions								
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.746	0.254	0.000		0.000	0.000		
1989	0.514	0.486	0.000		0.000	0.000		
District 106 Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.805	0.182	0.006		0.007	0.013		
1987	0.823	0.160	0.012		0.006	0.017		
1988	0.867	0.100	0.033		0.000	0.033		
1989	0.622	0.307	0.016		0.055	0.071		
1990	0.548	0.416	0.014		0.022	0.035		
1994	0.500	0.250	0.250		0.000	0.250	0.250	0.000
District 108 Proportions								
1985	0.064	0.000	0.292		0.644	0.936		
1986	0.134	0.044	0.486		0.336	0.822		
1987	0.125	0.000	0.438		0.437	0.875		
1988	0.205	0.049	0.132		0.614	0.746		
1989	0.132	0.084	0.072		0.712	0.784		
1990	0.417	0.172	0.094		0.318	0.411		
1991	0.128	0.128	0.494		0.251	0.745		
1992	0.149	0.076	0.333		0.442	0.774		
1993	0.168	0.109	0.475		0.248	0.719		
1998	0.064	0.041	0.353	0.438	0.104	0.895	0.336	0.016
1999	0.162	0.019	0.481	0.298	0.041	0.820	0.453	0.028
2000	0.110	0.116	0.302	0.321	0.150	0.774	0.240	0.062

Appendix B. 11. Stock specific catches of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2002.

Table only includes years when test fisheries were operated and catches included sockeye salmon.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan[a]	Tuya	Mainstem	Total	Wild	Planted
Sub-district 106-41 (Sumner Strait) Catches								
1984	901	368	40		61	101		
1985	2,085	1,741	475		44	519		
1986	819	146	8		9	17		
1987	2,169	442	39		9	47		
1988	886	100	35		0	35		
1989	1,274	621	34		114	148		
1990	1,237	939	31		49	80		
1994	6	3	3		0	3		
Subdistrict 106-30 (Clarence Strait) Catches								
1986	263	99	0		1	1		
1987	758	126	3		11	15		
1988	12	4	0		0	0		
1989	19	18	0		0	0		
District 106 Catches								
1984	901	368	40		61	101		
1985	2,085	1,741	475		44	519		
1986	1,082	245	8		9	17		
1987	2,928	568	42		20	62		
1988	898	104	35		0	35		
1989	1,293	639	34		114	148		
1990	1,237	939	31		49	80		
1994	6	3	3		0	3	3	0
District 108 Catches								
1985	81	0	367		810	1,177		
1986	76	25	274		190	464		
1987	36	0	127		127	254		
1988	93	22	59		277	336		
1989	137	87	75		739	814		
1990	361	149	81		275	356		
1991	114	114	441		224	665		
1992	194	99	432		574	1,006		
1993	51	33	144		75	219		
1998	224	145	1,238	1,538	365	3,141	1,181	57
1999	776	89	2,309	1,430	197	3,936	2,174	135
2000	516	544	1,416	1,505	705	3,626	1,125	291

Appendix B. 12. Salmon catch and effort in the Canadian commercial fishery in the lower Stikine River, 1979-2002.

	Catch						Effort	
	Chinook						Permit	
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Days
1979[a]	712	63	10,534	10,720	1,994	424	756.0	42.0
1980[b]	1,488		18,119	6,629	736	771	668.0	41.0
1981[b]	664		21,551	2,667	3,713	1,128	522.0	32.0
1982[b]	1,693		15,397	15,904	1,782	722	1,063.0	71.0
1983	492	430	15,857	6,170	1,043	274	434.0	54.0
1984	no commercial fishery.							
1985	256	91	17,093	2,172	2,321	532	145.5	22.5
1986	806	365	12,411	2,278	107	295	239.0	13.5
1987	909	242	6,138	5,728	646	432	287.0	20.0
1988	1,007	201	12,766	2,112	418	730	320.0	26.5
1989	1,537	157	17,179	6,092	825	674	325.0	23.0
1990	1,569	680	14,530	4,020	496	499	328.0	29.0
1991	641	318	17,563	2,638	394	208	282.4	39.0
1992	873	89	21,031	1,850	122	231	235.4	55.0
1993	830	164	38,464	2,616	29	395	483.8	58.0
1994	1,016	158	38,462	3,377	89	173	430.1	74.0
1995	1,067	599	45,622	3,418	48	256	534.0	59.0
1996	1,708	221	66,262	1,402	25	229	439.2	81.0
1997	3,283	186	56,995	401	269	222	569.4	89.0
1998	1,614	328	37,310	726	55	13	374.0	46.5
1999	2,127	789	32,556	181	11	8	261.3	31.0
2000	1,970	240	20,472	298	181	144	227.0	23.3
2001	826	59	19,872	233	78	56	173.0	23.0
Averages								
79-01c	1,252	295	25,281	3,711	699	383	414	43.3
92-01	1,531	283	37,705	1,450	91	173	373	54.0
2002	433	209	10,420	82	19	33	169.0	21.0

[a] The lower river commercial catch in 1979 includes the upper river commercial catch.

[b] All Chinook combined

[c] Chinook averages only since 1983 when large fish and jacks were recorded separately.

Appendix B. 13. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 1979-2002.

	Proportions			Planted	Catch			Tahltan			Fishery
Year	Tahltan	Tuya	Mainstem	Tahltan	Tahltan	Tuya	Mainstem	Wild	Planted	Stock Id Method	Timing
1979	0.433		0.567		4,561		5,973			circuli counts	
1980	0.309		0.691		5,599		12,520			circuli counts	
1981	0.476		0.524		10,258		11,293			circuli counts	
1982	0.624		0.376		9,608		5,789			circuli counts	
1983	0.422		0.578		6,692		9,165			circuli counts	
1984[a]										SPA	
1985	0.623		0.377		10,649		6,444			SPA	
1986	0.489		0.511		6,069		6,342			SPA&GPA	
1987	0.225		0.775		1,380		4,758			SPA&GPA	
1988	0.161		0.839		2,062		10,704			SPA&GPA	
1989	0.164		0.836		2,813		14,366			Eggs &TMR	
1990	0.346		0.654		5,029		9,501			Eggs &TMR	
1991	0.634		0.366		11,136		6,427			Eggs &TMR	
1992	0.482		0.518		10,134		10,897			Eggs &TMR	
1993	0.537		0.463		20,662		17,802			Eggs &TMR	
1994	0.616		0.384		23,678		14,784			Eggs &TMR	commercia
1995	0.676	0.020	0.304	0.195	30,848	893	13,881	21,936	8,912	Eggs &TMR	commercia
1996	0.537	0.113	0.350	0.066	35,584	7,465	23,213	31,197	4,387	Eggs &TMR	commercia
1997	0.356	0.272	0.372	0.072	20,269	15,513	21,213	16,175	4,094	Eggs &TMR	commercia
1998	0.335	0.352	0.313	0.020	12,498	13,137	11,675	11,751	747	Eggs &TMR	commercia
1999	0.576	0.241	0.183	0.021	18,742	7,862	5,952	18,046	696	Eggs &TMR	commercia
2000	0.252	0.397	0.350	0.039	5,165	8,136	7,171	4,364	801	Eggs &TMR	commercia
2001	0.175	0.226	0.599	0.032	3,482	4,483	11,907	2,850	632	Eggs &TMR	test
Averages											
79-01	0.429		0.497		11,678		10,990				
92-01	0.454	0.232	0.384	0.064	18,106	8,213	13,850	15,188	2,896		
2002	0.320	0.128	0.552	0.074	3,335	1,335	5,750	2,559	776	Eggs &TMR	test

[a] There was no commercial fishery in 1984.

Appendix B. 14. Salmon catch and effort in the Canadian commercial fishery in the upper Stikine River, 1975-2002.

	Catch						Effort	
	Chinook						Permit	
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Days
1975	178		270	45	0	0		
1976	236		733	13	0	0		
1977[a]	62		1,975	0	0	0		
1978[a]	100		1,500	0	0	0		
1979[b]								
1980	156		700	40	20	0		
1981	154		769	0	0	0	11.0	5.0
1982	76		195	0	0	0	8.0	4.0
1983	75		614	0	0	4	10.0	8.0
1984	no commercial fishery.							
1985	62		1,084	0	0	0	14.0	6.0
1986	104	41	815	0	0	0	19.0	7.0
1987	109	19	498	0	0	19	20.0	7.0
1988	175	46	348	0	0	0	21.5	6.5
1989	54	17	493	0	0	0	14.0	7.0
1990	48	20	472	0	0	0	15.0	7.0
1991	117	32	761	0	0	0	13.0	6.0
1992	56	19	822	0	0	0	28.0	13.0
1993	44	2	1,692	0	0	0	48.0	22.0
1994	76	1	2,466	0	1	0	68.0	50.0
1995	9	17	2,355	0	0	0	54.0	25.0
1996	41	44	1,101	0	0	0	75.0	59.0
1997	45	6	2,199	0	0	0	42.0	29.0
1998	12	0	907	0	0	0	19.0	19.0
1999	24	12	625	0	0	0	19.0	18.0
2000	7	2	889	0	0	0	19.8	9.3
2001	0	0	487	0	0	0	6.0	4.0
Averages								
75-01[c]	58	17	991	4	1	1	26	15.6
92-01	31	10	1,354	0	0	0	38	24.8
2002	2	3	484	0	0	0	12.0	9.0

[a] All Chinook combined.

[b] In 1979 the lower and upper river commercial fishery catches were combined

[c] Chinook averages only since 1986 when large fish and jacks were recorded separately.

Appendix B. 15. Salmon catch in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 1972-2002.

	Catch					
	Chinook					
Year	Large	non large	Sockeye	Coho	Pink	Chum
1972			4,373	0	0	0
1973	200		3,670	0	0	0
1974	100		3,500	0	0	0
1975	1,024		1,982	5	0	0
1976	924		2,911	0	0	0
1977	100		4,335	0	0	0
1978	400		3,500	0	0	0
1979	850		3,000	0	0	0
1980	587		2,100	100	0	0
1981	586		4,697	200	144	0
1982	618		4,948	40	60	0
1983	851	215	4,649	3	77	26
1984	643	59	5,327	1	62	0
1985	793	94	7,287	3	35	4
1986	1,026	569	4,208	2	0	12
1987	1,183	183	2,979	3	0	8
1988	1,178	197	2,177	5	0	3
1989	1,078	115	2,360	6	0	0
1990	633	259	3,022	17	0	0
1991	753	310	4,439	10	0	0
1992	911	131	4,431	5	0	0
1993	929	142	7,041	0	0	0
1994	698	191	4,167	4	0	0
1995	570	244	5,490	0	0	7
1996	722	156	6,918	2	0	3
1997	1,155	94	6,365	0	0	0
1998	538	95	5,586	0	0	0
1999	765	463	4,874	0	0	0
2000	1,109	386	6,107	3	0	0
2001	665	44	5,241	0	0	0
Averages						
72-01 [a]	853	208	4,389	14	13	2
92-01	806	195	5,622	1	0	1
2002	927	366	6,390	0	0	0

[a] Chinook averages only since 1983 when large fish and jacks were recorded separately.

Appendix B. 16. Stock specific sockeye salmon catches in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 1972-2002.

	Upper River Commercial					Aboriginal Fishery				
				Tahltan					Tahltan	
Year	Tahltan	Tuya	Mainstem	Wild	Planted	Tahltan	Tuya	Mainstem	Wild	Planted
1972						3,936		437		
1973						3,303		367		
1974						3,150		350		
1975	243		27			1,784		198		
1976	660		73			2,620		291		
1977	1,778		198			3,902		434		
1978	1,350		150			3,150		350		
1979[a]						2,700		300		
1980	630		70			1,890		210		
1981	692		77			4,227		470		
1982	176		20			4,453		495		
1983	553		61			4,184		465		
1984[b]						4,794		533		
1985	976		108			6,558		729		
1986	734		82			3,787		421		
1987	448		50			2,681		298		
1988	313		35			1,959		218		
1989	444		49			2,124		236		
1990	425		47			2,720		302		
1991	685		76			3,995		444		
1992	740		82			3,988		443		
1993	1,523		169			6,337		704		
1994	2,219		247	1,904	315	3,750		417	3,217	533
1995	2,120	60	176	1,508	612	4,941	139	410	3,514	1,427
1996	945	150	6	824	121	5,802	972	144	4,931	871
1997	1,152	834	213	914	238	3,318	2,403	644	2,631	687
1998	363	517	27	336	27	2,352	3,103	131	2,227	125
1999	359	206	60	356	3	3,038	1,423	413	2,903	135
2000	224	581	84	224	0	1,733	3,989	385	1,681	52
2001	213	229	45	148	65	1,795	2,939	507	1,454	341
Averages										
79-01	798		89		173	3,503		392		
92-01	986	368	111	777	173	3,705	2,138	420	2,820	521
2002	182	240	62	140	42	2,697	3,155	538	2,092	605

[a] Catches in 1979 were included in the lower river commercial catches.

[b] There was no commercial fishery in 1984.

Appendix B. 17. Salmon catch in the combined Canadian net fisheries in the Stikine River, 1972-2002.

There was no commercial fishery in 1984.

Chinook averages only since 1983 when large and small fish were recorded separately.

ESSR catches not included.

	Catch						
	Chinook						
Year	Large	non large	Sockeye	Coho	Pink	Chum	Steelhead
1972	0		4,373	0	0	0	0
1973	200		3,670	0	0	0	0
1974	100		3,500	0	0	0	0
1975	1,202		2,252	50	0	0	0
1976	1,160		3,644	13	0	0	0
1977	162		6,310	0	0	0	0
1978	500		5,000	0	0	0	0
1979	1,562	63	13,534	10,720	1,994	424	264
1980	2,231		20,919	6,769	756	771	362
1981	1,404		27,017	2,867	3,857	1,128	284
1982	2,387		20,540	15,944	1,842	722	828
1983	1,418	645	21,120	6,173	1,120	304	714
1984	643	59	5,327	1	62	0	2
1985	1,111	185	25,464	2,175	2,356	536	240
1986	1,936	975	17,434	2,280	107	307	194
1987	2,201	444	9,615	5,731	646	459	219
1988	2,360	444	15,291	2,117	418	733	261
1989	2,669	289	20,032	6,098	825	674	127
1990	2,250	959	18,024	4,037	496	499	199
1991	1,511	660	22,763	2,648	394	208	71
1992	1,840	239	26,284	1,855	122	231	132
1993	1,803	308	47,197	2,616	29	395	67
1994	1,790	350	45,095	3,381	90	173	84
1995	1,646	860	53,467	3,418	48	263	270
1996	2,471	421	74,281	1,404	25	232	183
1997	4,483	286	65,559	401	269	222	33
1998	2,164	423	43,803	726	55	13	209
1999	2,916	1,264	38,055	181	11	8	14
2000	3,086	628	27,468	301	181	144	103
2001	1,491	103	25,600	233	78	56	30
2002	1,362	578	17,294	82	19	33	17
Averages							
72-01	2,289	541	23,755	2,738	526	283	163
92-01	2,369	488	44,681	1,452	91	174	113
2002	1,362	578	17,294	82	19	33	17

Appendix B. 18. Salmon catches in the Stikine River harvested under Canadian ESSR licenses, 1992-2002.

	Tahltan Area			Tuya Area				
	Catch					Tahltan		
Year	Total	Wild	Planted	Tahltan	Tuya Mainstem	Wild	Planted	Total
1993	1,752	1,714	38					0
1994	6,852	5,682	1,170					0
1995	10,740	6,680	4,060					0
1996	14,339	12,667	1,672		216			216
1997					2,015			2,015
1998					6,103			6,103
1999					2,822			2,822
2000					1,283			1,283
2001								0
2002								0
Salmon taken for otolith samples when ESSR not operated.								
1997	378	302	76					
1998	390	364	26					
1999	429	404	25					
2000	406	324	82					
2001	50	30	20		410			
2002	400	285	115		501			

Appendix B. 19. Salmon catches and effort in Canadian test fisheries in the Stikine River, 1985-2002.

	Catches								Effort
		Chinook							Drift=#
Year	Large	released	non large	Sockeye	Coho	Pink	Chum	Steelhead	Set=hr.
Drift Test Fishery Catches									
1985									
1986	27		12	412	226	8	25	0	405
1987[a]	128			385	162	111	61	0	845
1988	168		14	325	75	9	33	7	720
1989	116		4	364	242	41	46	5	870
1990	167		6	447	134	5	29	6	673
1991	90		1	503	118	37	30	3	509
1992	135		27	393	75	13	23	7	312
1993	94		11	440	37	6	18	7	304
1994	43		4	179	71	6	20	7	175
1995	18		13	297	35	4	12	4	285
1996	42		5	262	55	4	55	10	245
1997	30		7	245	11	9	15	2	210
1998	25		11	190	207	20	40	24	820
1999	53		43	410	312	11	17	25	1,006
2000	59		4	374	60	9	45	23	694
2001	128		3	967	257	74	47	27	883
Averages									
85-01	83		11	387	130	23	32	10	560
92-01	63		13	376	112	16	29	14	493
2002	63		50	744	306	14	31	20	898
Set Test Fishery Catches									
1985				1,340					
1986									
1987[a]	61			1,283	620	587	193	0	1,456
1988	101		15	922	130	23	65	14	1,380
1989	101		20	1,243	502	249	103	17	1,392
1990	64		12	1,493	271	42	48	18	1,212
1991	77		15	1,872	127	197	48	1	1,668
1992	62		21	1,971	193	56	43	19	1,249
1993	85		11	1,384	136	6	63	6	1,224
1994	74		34	414	0	0	0	0	456
1995	61		35	850	166	5	41	14	888
1996	64		40	338	0	0	0	1	312
1997									
1998									
1999	49		16	803	64	6	10	11	1,577
2000	87		0	1,015	181	25	120	27	3,715
2001	56		7	2,223	1,078	124	61	61	2,688
Averages									
85-01	72		19	1,225	267	102	61	15	1,478
92-01	67		21	1,125	227	28	42	17	1,514
2002	48		56	3,540	1,323	13	48	50	2,845

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	Catches								Effort
	Chinook								Drift=#
Year	Large	released	non large	Sockeye	Coho	Pink	Chum	Steelhead	Set=hr.
Additional Test Fishery Catches									
1992	417		134	594	0	0	0	0	85
1993	389		65	1,925	2	1	3	2	266
1994	178		40	840	0	0	0	0	131
1995	169		136	1,423	26	1	9	1	222
1996	192		31	712	0	0	0	0	138
1997									
1998									
1999	751		38	4,683	16	18	2	7	531
2000	787		14	989	195	0	9	26	1,427
2001	1,652		49	91	426	0	1	6	1,399
Averages									
85-01	538		63	1,407	83	3	3	5	525
92-01	538		63	1,407	83	3	3	5	525
2002	1,545		217	128	1,116	0	1	21	2,048
Total Test Fishery Catches									
1985	0		0	1,340	0	0	0	0	
1986	27		12	412	226	8	25	0	
1987	189		30	1,668	782	698	254	0	
1988	269		29	1,247	205	32	98	21	
1989	217		24	1,607	744	290	149	22	
1990	231		18	1,940	405	47	77	24	
1991	167		16	2,375	245	234	78	4	
1992	614		182	2,958	268	69	66	26	
1993	568		87	3,749	175	13	84	15	
1994	295		78	1,433	71	6	20	7	
1995	248		184	2,570	227	10	62	19	
1996	298		76	1,312	55	4	55	11	
1997	30		7	245	11	9	15	2	
1998	25		11	190	207	20	40	24	
1999	853		97	5,896	392	35	29	43	
2000	933	226	18	2,378	436	34	174	76	
2001	1,836	401	59	3,281	1,761	198	109	94	
Averages									
85-01	384		57	2,035	365	100	79	23	
92-01	542		84	2,401	360	40	65	32	
2002	1,656	378	323	4,412	2,745	27	80	91	

[a] 1987 jack chinook catch was for both set and drift nets.

Appendix B. 20. Sockeye salmon stock proportions and catch by stock in the test fishery in the lower Stikine River, 1985-2002.

Average proportions were from averages of weekly estimates.

	Catch					Proportions						
	Tahltan				Marked	Tahltan		Average			Stock Id	Fishery
Year	U.S.	Canada	Tuya	Mainstem	Tahltan	U.S.	Canada	Tahltan	Tuya	Mainstem	Method	Timing
1985	560	439		841		0.418	0.328	0.372		0.628	SPA	
1986	164	127		267		0.398	0.308	0.352		0.648	SPA&GPA	
1987	513	397		1,213		0.308	0.238	0.273		0.727	SPA&GPA	
1988	408	295		895		0.327	0.237	0.282		0.718	SPA&GPA	
1989		414		1,192			0.258	0.258		0.742	Eggs &TMR	
1990		822		1,058			0.454	0.454		0.546	Eggs &TMR	
1991		1,443		931			0.608	0.608		0.392	Eggs &TMR	
1992		1,912		1,046			0.646	0.646		0.354	Eggs &TMR	
1993		2,184		1,564			0.583	0.583		0.417	Eggs &TMR	
1994		1,228		205			0.857	0.857		0.143	Eggs &TMR	commercial
1995		2,064	20	486	729		0.803	0.803	0.008	0.189	Eggs &TMR	commercial
1996		875	116	321	108		0.667	0.667	0.088	0.245	Eggs &TMR	commercial
1997		97	54	94	20		0.396	0.396	0.220	0.384	Eggs &TMR	commercial
1998		70	51	69	4		0.368	0.368	0.268	0.363	Eggs &TMR	commercial
1999		3,031	1,564	1,301	113		0.514	0.514	0.265	0.221	Eggs &TMR	commercial
2000		605	982	791	94		0.254	0.254	0.413	0.333	Eggs &TMR	commercial
2001		684	924	1,673	124		0.208	0.208	0.282	0.510	Eggs &TMR	test
Averages												
85-01								0.464	0.221	0.445		
92-01								0.530	0.221	0.316		
2002		1,726	694	1,992	402		0.391	0.391	0.157	0.451	Eggs &TMR	test

Appendix B. 21. Estimated proportion of inriver run comprised of Tahltan, Tuya, and mainstem sockeye salmon stocks, 1979-2002.

Average proportions were from averages of weekly stock composition and migratory timing (from drift test fishery) estimates.

	Tahltan		Average			Stock Id	Fishery
Year	U.S.	Canada	Tahltan	Tuya	Mainstem	Method	Timing
1979	0.433		0.433		0.567	circuli counts	
1980	0.305		0.305		0.695	circuli counts	
1981	0.475		0.475		0.525	circuli counts	
1982	0.618		0.618		0.382	circuli counts	
1983	0.489	0.423	0.456		0.544	circuli counts	
1984	0.635	0.394	0.493		0.507	SPA	
1985	0.621	0.363	0.466		0.534	SPA	
1986	0.398	0.500	0.449		0.551	SPA&GPA	
1987	0.338	0.257	0.304		0.696	SPA&GPA	
1988	0.209	0.122	0.172		0.828	SPA&GPA	
1989		0.188	0.188		0.812	Eggs &TMR	
1990		0.417	0.417		0.583	Eggs &TMR	
1991		0.561	0.561		0.439	Eggs &TMR	
1992		0.496	0.496		0.504	Eggs &TMR	
1993		0.477	0.477		0.523	Eggs &TMR	
1994		0.606	0.606		0.394	Eggs &TMR	commercial
1995		0.578	0.578	0.016	0.406	Eggs &TMR	commercial
1996		0.519	0.519	0.104	0.377	Eggs &TMR	commercial
1997		0.297	0.297	0.229	0.474	Eggs &TMR	commercial
1998		0.309	0.309	0.348	0.344	Eggs &TMR	commercial
1999		0.545	0.545	0.245	0.209	Eggs &TMR	commercial
2000		0.260	0.260	0.391	0.349	Eggs &TMR	commercial
2001		0.202	0.202	0.268	0.530	Eggs &TMR	commercial
Averages							
79-01			0.419		0.512		
92-01			0.429	0.229	0.411		
2002		0.360	0.360	0.141	0.498	Eggs &TMR	test

Appendix B. 22. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959-2002.

Daily counts were unavailable in 1963. A rock slide blocked the enterance during some of the migration in 1965.

Year	Weir Installed	Date of Arrival			Weir Pulled	Total Count	Brood-stock	Samples or ESSR	Otolith Samples	Spawners		
		First	50%	90%						Total	Natural	Hatchery
1959	30-Jun	2-Aug	12-Aug	16-Aug		4,311						
1960	15-Jul	2-Aug	24-Aug	27-Aug		6,387						
1961	20-Jul	9-Aug	11-Aug	15-Aug		16,619						
1962	1-Aug	2-Aug	5-Aug	8-Aug		14,508						
1963	3-Aug					1,780						
1964	23-Jul	26-Jul	14-Aug	25-Aug		18,353						
1965	19-Jul	18-Jul	2-Sep	7-Sep		1,471						
1966	12-Jul	3-Aug	13-Aug	21-Aug		21,580						
1967	11-Jul	14-Jul	21-Jul	28-Jul		38,801						
1968	11-Jul	21-Jul	25-Jul	8-Aug		19,726						
1969	7-Jul	11-Jul	18-Jul	31-Jul		11,805						
1970	5-Jul	25-Jul	1-Aug	11-Aug		8,419						
1971	12-Jul	19-Jul	28-Jul	12-Aug		18,523						
1972	13-Jul	13-Jul	19-Jul	31-Aug	21-Aug	52,545						
1973	10-Jul	24-Jul	30-Jul	7-Aug	1-Sep	2,877						
1974	3-Jul	28-Jul	3-Aug	17-Aug	13-Sep	8,101						
1975	10-Jul	25-Jul	8-Aug	17-Aug	28-Aug	8,159						
1976	16-Jul	29-Jul	1-Aug	6-Aug	24-Aug	24,111						
1977	6-Jul	11-Jul	16-Jul	10-Aug	25-Aug	42,960						
1978	10-Jul	10-Jul	20-Jul	29-Jul	26-Aug	22,788						
1979	9-Jul	23-Jul	1-Aug	11-Aug	31-Aug	10,211						
1980	4-Jul	15-Jul	22-Jul	12-Aug	3-Sep	11,018						
1981	30-Jun	16-Jul	26-Jul	3-Aug	8-Sep	50,790						
1982	2-Jul	10-Jul	19-Jul	29-Jul	4-Sep	28,257						
1983	27-Jun	5-Jul	22-Jul	5-Aug	7-Sep	21,256						
1984	20-Jun	19-Jul	24-Jul	3-Aug	29-Aug	32,777						
1985	28-Jun	18-Jul	31-Jul	6-Aug	5-Sep	67,326						
1986	10-Jul	26-Jul	4-Aug	11-Aug	4-Sep	20,280						
1987	14-Jul	21-Jul	4-Aug	13-Aug	27-Aug	6,958						
1988	16-Jul	16-Jul	6-Aug	14-Aug	29-Aug	2,536						
1989	7-Jul	9-Jul	1-Aug	14-Aug	4-Sep	8,316	2,210			6,106		
1990	6-Jul	15-Jul	26-Jul	3-Aug	28-Aug	14,927	3,302			11,625		
1991	30-Jun	17-Jul	25-Jul	7-Aug	5-Sep	50,135	3,552			46,583		
1992	9-Jul	18-Jul	25-Jul	3-Aug	2-Sep	59,907	3,694			56,213		
1993	7-Jul	10-Jul	28-Jul	10-Aug	11-Sep	53,362	4,506	1,752		47,104	46,074	1,030
1994	7-Jul	14-Jul	30-Jul	9-Aug	7-Sep	46,363	3,378	6,852		36,133	29,961	6,172
1995	8-Jul	9-Jul	24-Jul	12-Aug	16-Sep	42,317	4,902	10,740		26,675	16,591	10,084
1996	6-Jul	14-Jul	22-Jul	4-Aug	10-Sep	52,500	4,402	14,339		33,759	29,823	3,936
1997	9-Jul	15-Jul	25-Jul	26-Aug	26-Sep	12,483	2,294		378	9,811	7,829	1,982
1998	9-Jul	11-Jul	25-Jul	26-Aug	17-Sep	12,658	3,099		390	9,169	8,553	616
1999	10-Jul	19-Jul	31-Jul	13-Aug	15-Sep	10,748	2,870		429	7,449	6,952	497
2000	9-Jul	21-Jul	25-Jul	3-Aug	4-Sep	6,076	1,717		406	3,953	3,152	801
2001	8-Jul	19-Jul	31-Jul	9-Aug	14-Sep	14,811	2,386		50	12,375	7,475	4,900
Averages												
59-01	09-Jul	19-Jul	30-Jul	11-Aug	04-Sep	22,787						
92-01	08-Jul	15-Jul	26-Jul	11-Aug	12-Sep	31,123	3,325	3,926		24,264	17,379	3,335
2002	07-Jul	12-Jul	25-Jul	08-Aug	14-Sep	17,740	3,051	400		14,289	10,490	3,799

Appendix B. 23. Aerial survey counts of Mainstem sockeye salmon stocks in the Stikine River drainage, 1984-2002.

The index represents the combined counts from eight spawning areas.

Survey conditions were exceptionally poor; therefore, the counts probably did reflect relative abundance.

Year	Chutine River	Scud River	Porcupine Slough	Christina Creek	Craig River	Bronson Slough	Verrett Creek	Verrett Slough	Escapement Index
1984	526	769	69	130	102		640		2,236
1985	253	282	69	67	27		383		1,081
1986	139	151	6	0	0		270		566
1987	6	490	62	6	30		103		697
1988	14	219	22	7	0		114		376
1989	29	269	133	10	60	60	180	68	809
1990	24	301	31	4	0	0	301	82	743
1991	0	100	61		7	32	179	8	387
1992	164	1,242	90	50	17	138	163	22	1,886
1993	57	321	141	28	2	79	107	142	877
1994	267	292	66			62	147	114	948
1995	13	260	11			72	47	31	434
1996	134	351	149			27	54	338	1,053
1997	204	271	25			12	116	32	660
1998	230	246	89			9	183	135	892
1999	56	301	64			54	98	78	651
2000	47	86	86			32	0	90	341
2001	601	2,037	268			163	217	232	3,518
Averages									
84-01	154	444	80	34	25	57	183	106	1,009
92-01	177	541	99	39	10	65	113	121	1,126
2002	239	216	95			13	353	0	916

Appendix B. 24. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984-2002.

Estimate changes due to overcrowding mortality, 1987 and expansions by average % of outmigration by date from historical data90-92.

Year	Weir Installed	Date of Arrival			Total Count	Total Estimate	Date and Expansion	Smolt	
		First	50%	90%				Natural	Hatchery
1984	10-May	11-May	23-May	6-Jun		218,702			
1985	25-Apr	23-May	31-May	28-May		613,531			
1986	8-May	10-May	31-May	7-Jun		244,330			
1987	7-May	15-May	23-May	24-May		810,432			
1988	1-May	8-May	20-May	6-Jun		1,170,136			
1989	5-May	8-May	22-May	6-Jun		580,574			
1990	5-May	15-May	29-May	5-Jun	595,147	610,407	6/14 97.5%		
1991	5-May	14-May	21-May	30-May	1,439,676	1,487,265	6/13 96.8%	1,220,397	266,868
1992	7-May	13-May	21-May	27-May	1,516,150	1,555,026	6/14 97.5%	750,702	804,324
1993	7-May	11-May	17-May	22-May		3,255,045		2,855,562	399,483
1994	8-May	8-May	16-May	12-Jun		915,119		620,809	294,310
1995	5-May	6-May	13-May	11-Jun		822,284		767,027	55,257
1996	11-May	11-May	20-May	25-May		1,559,236		1,408,020	151,216
1997	7-May	11-May	23-May	30-May		518,202		348,685	169,517
1998	7-May	8-May	25-May	5-Jun		540,866		326,420	214,446
1999	6-May	10-May	9-Jun	15-Jun		762,033		468,488	293,545
2000	7-May	9-May	22-May	17-Jun		619,274		355,618	263,656
2001	6-May	7-May	24-May	18-Jun		1,495,642		841,268	654,374
Averages									
84-01	05-May	11-May	23-May	04-Jun		987,672		905,727	324,272
92-01	07-May	09-May	22-May	05-Jun		1,204,273		874,260	330,013
2002	06-May	14-May	27-May	12-Jun		1,873,598		1,042,435	831,163

Appendix B. 25. Weir counts of Chinook salmon at Little Tahltan River, 1985-2002.

	Weir	Date of Arrival			Total	Broodstock	Natural	Total Natural
Year	Installed	First	50%	90%	Count	and Other	Spawners	Spawners
Large Chinook								
1985	3-Jul	4-Jul	30-Jul	6-Aug	3,114		3,114	
1986	28-Jun	29-Jun	21-Jul	5-Aug	2,891		2,891	
1987	28-Jun	4-Jul	24-Jul	2-Aug	4,783		4,783	
1988	26-Jun	27-Jun	18-Jul	3-Aug	7,292		7,292	
1989	25-Jun	26-Jun	23-Jul	2-Aug	4,715		4,715	
1990	22-Jun	29-Jun	23-Jul	4-Aug	4,392		4,392	
1991	23-Jun	25-Jun	20-Jul	3-Aug	4,506		4,506	
1992	24-Jun	4-Jul	21-Jul	30-Jul	6,627	-12	6,615	
1993	20-Jun	21-Jun	16-Jul	28-Jul	11,449	-12	11,437	
1994	18-Jun	28-Jun	22-Jul	2-Aug	6,387	-14	6,373	
1995	17-Jun	20-Jun	17-Jul	4-Aug	3,072	0	3,072	
1996	17-Jun	26-Jun	16-Jul	30-Jul	4,821	0	4,821	
1997	14-Jun	22-Jun	16-Jul	29-Jul	5,557	-10	5,547	
1998	13-Jun	19-Jun	14-Jul	29-Jul	4,879	-6	4,873	
1999	18-Jun	27-Jun	19-Jul	1-Aug	4,738	-5	4,733	
2000	19-Jun	23-Jun	21-Jul	5-Aug	6,640	-9	6,631	
2001	20-Jun	23-Jun	18-Jul	2-Aug	9,738	-8	9,730	
Averages								
85-01	22-Jun	27-Jun	19-Jul	01-Aug	5,624		5,619	
92-01	18-Jun	25-Jun	18-Jul	31-Jul	6,391	-8	6,383	
2002	20-Jun	23-Jun	18-Jul	27-Jul	7,490	-14	7,476	
non large Chinook								
1985	3-Jul	4-Jul	31-Jul	10-Aug	316			3,430
1986	28-Jun	3-Jul	25-Jul	6-Aug	572			3,463
1987	28-Jun	3-Jul	26-Jul	6-Aug	365			5,148
1988	26-Jun	27-Jun	17-Jul	2-Aug	327			7,619
1989	25-Jun	26-Jun	23-Jul	2-Aug	199			4,914
1990	22-Jun	5-Jul	22-Jul	30-Jul	417			4,809
1991	23-Jun	3-Jul	24-Jul	7-Aug	313			4,819
1992	24-Jun	12-Jul	22-Jul	30-Jul	131			6,758
1993	20-Jun	30-Jun	14-Jul	1-Aug	60			11,509
1994	18-Jun	2-Jul	22-Jul	5-Aug	121			6,508
1995	17-Jun	22-Jun	28-Jul	10-Aug	135			3,207
1996	17-Jun	12-Jul	25-Jul	5-Aug	22			4,843
1997	14-Jun	26-Jun	21-Jul	1-Aug	54			5,611
1998	13-Jun	26-Jun	20-Jul	7-Aug	37			4,916
1999	18-Jun	1-Jul	23-Jul	6-Aug	202			4,940
2000	19-Jun	23-Jun	20-Jul	5-Aug	108			6,748
2001	20-Jun	23-Jun	27-Jul	3-Aug	269			10,007
2002	20-Jun	26-Jun	21-Jul	7-Aug	618			8,108
Averages								
85-01	174	29-Jun	22-Jul	03-Aug	01-Aug			5,838
92-01	170.9	28-Jun	21-Jul	02-Aug	22-Apr			6,505
2002	172	26-Jun	21-Jul	7-Aug	9-Sep			8,108

Appendix B. 26. Index counts of Stikine Chinook salmon escapements, 1979-2002.

Inriver run and escapement generated from mark-recapture studies, inriver and marine catched as reported in ADF&G fisheries data series reports

Total run from jointly accepted US and Canadian catch estimates. Counts do not include small Chinook. Terminal run includes only catches in the Stikine River and District 108.

	Inriver	Inrvier		Marine	Total	% to	Little Tahltan		Tahltan	Beatty	Andrew Creek	
Year	Run	Catches	Escapement	Catch	Run	Little Tahltan	Weir	Aerial	Aerial	Aerial	Foot	Comments
1979								1,166	2,118		327	Weir inc. broodstock
1980								2,137	960	122	282	Weir inc. broodstock
1981								3,334	1,852	558	536	Weir inc. broodstock
1982								2,830	1,690	567	672	Weir inc. broodstock
1983								594	453	83	366	Weir inc. broodstock
1984								1,294		126	389	Weir inc. broodstock
1985							3,114	1,598	1,490	147	320	Foot
1986							2,891	1,201	1,400	183	708	Foot
1987							4,783	2,706	1,390	312	788	Heli
1988							7,292	3,796	4,384	593	564	Foot
1989							4,715	2,527		362	530	Aerial
1990							4,392	1,755	2,134	271	664	Foot
1991							4,506	1,768	2,445	193	400	Aerial
1992							6,627	3,607	1,891	362	778	Heli
1993							11,437	4,010	2,249	757	1,060	Foot
1994							6,373	2,422		184	572	Heli
1995							3,072	1,117	696	152	343	Foot
1996	31,718	2,769	28,949			0.167	4,821	1,920	772	218	335	Heli
1997	31,509	4,513	26,996			0.205	5,547	1,907	260	218	293	Foot
1998	28,133	2,165	25,968			0.188	4,873	1,385	587	125	487	Foot
1999	23,716	3,769	19,947			0.237	4,733	1,379			605	Aerial
2000	30,301	2,770	27,531			0.241	6,631	2,720			690	Aerial
2001	66,646	4,103	62,543			0.156	9,730	4,258			1,054	Aerial
Average 92-01							6,384	2,473				
2002	53,983	3,808	50,175	3,587	57,570	0.149	7,476				876	Aerial

Appendix B. 27. Index counts of Stikine coho salmon escapements, 1984-2002.

Missing data due to poor survey conditions and Craig count low in 2004 due to survey conditions.

Year	Date	Katete West	Katete	Craig	Verrett	Bronson Slough	Scud Slough	Porcupine	Christina	Total
1984	30-Oct	147	313	0	15	42				517
1985	25-Oct	590	1,217	735	39	0	924	365		3,870
1988	28-Oct	32	227		175		97	53	0	584
1989	29-Oct	336	896	992	848	120	707	90	55	4,044
1990	30-Oct	94	548	810	494		664	430		3,040
1991	29-Oct	302	878	985	218		221	352		2,956
1992	29-Oct	295	1,346	949	320		462	316		3,688
1993	30-Oct						206	324		
1994	1-Nov	28	652	1,026	466		448	1,105		3,725
1995	30-Oct	211	208	1,419	574		621	719		3,752
1996	30-Oct	163	232	205	549		630	1,466		3,245
1997	1-Nov	2	0	19	116		272	648		1,057
1998	30-Oct	14	63	141	282		143	450		1,093
1999	5-Nov	163	773	891	490		661	894		3,872
2000	2-Nov				5		95	206		306
2001	2-Nov	207	1,401	3,121	708		1,571	397		7,405
Average										
84-91		185	625	869	353		515	521		2,877
92-01		135	584	971	390		511	653		3,127
2002	5-Nov	806	2,642	4,488	1,695		1,389	1,626		12,646

Appendix B. 28. Stikine River sockeye salmon run size, 1979-2002.

The averages for 1983-1985 are averages of weekly run timing estimates as well as stock composition estimates and are not simple averages of total estimates for the season.

Escapement includes fish later captured for broodstock and biological samples. Catches include test fishery catches.

	Inriver Run			Inriver		Marine	Total
Year	Canada	U.S.	Average	Catch	Escapement	Catch	Run
1979		40,353	40,353	13,534	26,819	8,299	48,652
1980		62,743	62,743	20,919	41,824	23,206	85,949
1981		138,879	138,879	27,017	111,862	27,538	166,417
1982		68,761	68,761	20,540	48,221	42,408	111,169
1983	77,260	66,838	71,683	21,120	50,563	5,772	77,455
1984	95,454	59,168	76,211	5,327	70,884	7,736	83,947
1985	237,261	138,498	184,747	26,804	157,943	29,747	214,494
1986			69,036	17,846	51,190	6,420	75,456
1987			39,264	11,283	27,981	4,085	43,350
1988			41,915	16,538	25,377	3,181	45,096
1989			75,054	21,639	53,415	15,492	90,546
1990			57,386	19,964	37,422	9,856	67,242
1991			120,152	25,138	95,014	34,323	154,476
1992			154,542	29,242	125,300	77,394	231,936
1993			176,100	52,698	123,402	104,630	280,730
1994			127,527	53,380	74,147	80,509	208,036
1995			142,308	66,777	75,531	76,420	218,728
1996			184,400	90,148	94,252	188,385	372,785
1997			125,657	67,819	57,838	101,258	226,915
1998			90,459	50,096	40,363	30,989	121,448
1999			65,879	46,773	19,106	58,735	124,614
2000			53,145	31,129	22,016	25,359	78,504
2001			103,755	28,881	74,874	23,500	127,255
Averages							
79-01			98,694	33,244	65,450	42,837	141,531
92-01			122,377	51,694	70,683	76,718	199,095
2002			72,363	22,607	49,756	8,076	80,439
Tahltan sockeye run size							
1979			17,472	7,261	10,211	5,076	22,548
1980			19,137	8,119	11,018	11,239	30,376
1981			65,968	15,178	50,790	16,189	82,157
1982			42,493	14,236	28,257	20,918	63,412
1983			32,684	11,428	21,256	5,073	37,758
1984			37,571	4,794	32,777	3,102	40,673
1985			86,008	18,682	67,326	25,197	111,205
1986			31,015	10,735	20,280	2,757	33,771
1987			11,923	4,965	6,958	2,259	14,182
1988			7,222	4,686	2,536	2,129	9,351
1989			14,110	5,794	8,316	1,561	15,671
1990			23,923	8,996	14,927	2,307	26,230
1991			67,394	17,259	50,135	23,612	91,006
1992			76,681	16,774	59,907	28,218	104,899
1993			84,068	32,458	51,610	40,036	124,104
1994			77,239	37,728	39,511	65,101	142,340
1995			82,290	50,713	31,577	51,665	133,955
1996			95,706	57,545	38,161	147,435	243,141
1997			37,319	24,836	12,483	43,408	80,727
1998			27,941	15,283	12,658	7,086	35,027
1999			35,918	25,170	10,748	23,431	59,349
2000			13,803	7,727	6,076	5,340	19,143
2001			20,985	6,174	14,811	6,339	27,324
Averages							
79-01			43,864	17,676	26,188	23,456	67,319
92-01			55,195	27,441	27,754	41,806	97,001
2002			26,080	8,340	17,740	2,055	28,135

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	Inriver Run			Inriver		Marine	Total
Year	Canada	U.S.	Average	Catch	Escapement	Catch	Run
Tuya sockeye run size							
1995			2,216	1,112	1,104	586	2,802
1996			19,158	8,919	10,239	19,442	38,600
1997			28,738	20,819	7,919	37,520	66,258
1998			31,442	22,911	8,531	15,941	47,383
1999			16,165	13,877	2,288	15,217	31,382
2000			20,779	14,971	5,808	13,255	34,034
2001			27,783	8,575	19,208	12,968	40,751
2002			10,235	5,925	4,310	4,058	14,293
Mainstem sockeye run size							
1979			22,880	6,273	16,608	3,223	26,103
1980			43,606	12,800	30,806	11,967	55,573
1981			72,911	11,839	61,072	11,349	84,260
1982			26,267	6,304	19,964	21,490	47,757
1983			38,999	9,692	29,307	699	39,698
1984			38,640	533	38,107	4,634	43,274
1985			98,739	8,122	90,617	4,550	103,289
1986			38,022	7,111	30,910	3,663	41,685
1987			27,342	6,318	21,023	1,826	29,168
1988			34,693	11,852	22,841	1,052	35,745
1989			60,944	15,845	45,099	13,931	74,875
1990			33,464	10,968	22,495	7,549	41,013
1991			52,758	7,879	44,879	10,712	63,470
1992			77,861	12,468	65,393	49,176	127,037
1993			92,033	20,240	71,792	64,594	156,627
1994			50,288	15,652	34,636	15,408	65,696
1995			57,802	14,953	42,850	24,169	81,971
1996			69,536	23,684	45,852	21,508	91,044
1997			59,600	22,164	37,436	20,330	79,930
1998			31,077	11,902	19,175	7,962	39,039
1999			13,797	7,726	6,071	20,087	33,884
2000			18,563	8,431	10,132	6,764	25,327
2001			54,987	14,132	40,855	4,193	59,180
Averages							
79-01			48,470	11,604	36,866	14,384	62,854
92-01			52,554	15,135	37,419	23,419	75,973
2002			36,049	8,342	27,707	1,963	38,012

Appendix C. 1. Weekly salmon catch and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet), commercial drift gillnet fishery, 2002.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
District 111 catches									
25	16-Jun	596	9,856	0	35	1,110	76	3.0	228
26	23-Jun	342	14,842	12	38	9,828	77	4.0	308
27	30-Jun	605	15,687	31	76	31,597	91	4.0	364
28	7-Jul	105	31,862	91	1,602	49,809	96	4.0	384
29	14-Jul	84	34,362	1,168	8,648	76,689	131	5.0	655
30	21-Jul	37	15,531	3,098	13,016	41,260	141	4.0	564
31	28-Jul	36	41,541	2,840	23,744	13,975	126	3.0	378
32	4-Aug	25	9,074	4,539	24,979	5,342	141	4.0	564
33	11-Aug	1	2,932	818	3,571	482	44	4.0	176
34	18-Aug	1	1,929	2,806	1,848	280	42	3.0	126
35	25-Aug	0	591	1,925	5	183	18	3.0	54
36	1-Sep	6	213	6,720	0	97	24	3.0	72
37	8-Sep	1	66	8,967	0	277	35	3.0	105
38	15-Sep	0	2	2,734	0	28	11	3.0	33
39	22-Sep	1	0	2,466	0	64	14	3.0	42
40-41	29-Sep	0	0	1,608	0	0	8	6.0	48
Total		1,840	178,488	39,823	77,562	231,021		61.0	4,101

Alaska Hatchery Contributions for Large Chinook and Coho

		Large Chinook		Coho	
		Hatchery	Wild	Hatchery	Wild
25	16-Jun	76	520	0	0
26	23-Jun	0	342	0	12
27	30-Jun	0	605	0	31
28	7-Jul	0	105	0	91
29	14-Jul	86	-2	0	1,168
30	21-Jul	46	-9	0	3,098
31	28-Jul	0	36	112	2,728
32	4-Aug	12	13	273	4,266
33	11-Aug	0	1	0	818
34	18-Aug	0	1	318	2,488
35	25-Aug	0	0	0	1,925
36	1-Sep	0	6	337	6,383
37	8-Sep	12	-11	581	8,386
38	15-Sep	0	0	0	2,734
39	22-Sep	0	1	0	2,466
40-41	29-Sep	0	0	0	1,608
Total		232	1,608	1,621	38,202

Subdistrict 111-32 Catches (Taku Inlet)									
25	16-Jun	571	9,280	0	35	958	72	3.0	216
26	23-Jun	285	13,101	12	38	7,675	74	4.0	296
27	30-Jun	526	13,877	19	76	17,765	83	4.0	332
28	7-Jul	83	29,035	74	1,498	33,931	90	4.0	360
29	14-Jul	58	24,971	854	7,155	33,654	110	5.0	550
30	21-Jul	6	7,983	911	8,086	9,108	85	4.0	340
31	28-Jul	4	10,888	1,042	14,897	4,046	70	3.0	210
32	4-Aug	5	2,436	1,158	5,973	938	44	2.0	88
33	11-Aug	0	275	162	1,419	96	16	2.0	32
34	18-Aug	0	701	2,220	1,101	22	30	2.0	60
35	25-Aug	0	282	1,614	5	183	16	2.0	32
36	1-Sep	6	213	6,660	0	97	24	2.0	48
37	8-Sep	1	66	8,967	0	277	36	3.0	108
38	15-Sep	0	2	2,734	0	28	10	3.0	30
39	22-Sep	1	0	2,466	0	64	14	3.0	42
40-41	29-Sep	0	0	1,608	0	0	8	6.0	48
Total		1,546	113,110	30,501	40,283	108,842		54.0	2,792
Subdistrict 111-34 Catches (Port Snettisham)									
32	4-Aug	0	537	51	150	130	2	1.0	2
33	11-Aug	0	1,568	72	616	107	10	4.0	40
34	18-Aug	0	341	113	212	85	4	3.0	12
Total		0	2,446	236	978	322		8	54

Appendix C. 2. Estimate of the proportion of natural and planted sockeye salmon stock groups harvested in the Alaskan District 111 commercial drift gillnet fishery by week, 2002.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include catches inside Port Snettisham

		Little Trapper			Tatsamenie		Total			Wild	U.S.
Week	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Taku	Crescent	Speel	Snett.	Hatchery
25	0.806	0.101	0.000	0.078	0.000	0.000	0.985	0.003	0.011	0.014	0.001
26	0.353	0.428	0.000	0.202	0.000	0.002	0.985	0.002	0.009	0.011	0.004
27	0.155	0.539	0.000	0.183	0.086	0.006	0.969	0.006	0.001	0.006	0.025
28	0.028	0.535	0.000	0.221	0.142	0.000	0.926	0.016	0.013	0.029	0.045
29	0.018	0.189	0.000	0.223	0.154	0.005	0.589	0.048	0.038	0.086	0.325
30	0.021	0.163	0.000	0.187	0.173	0.002	0.546	0.000	0.031	0.031	0.423
31	0.000	0.070	0.000	0.110	0.160	0.007	0.347	0.002	0.068	0.070	0.583
32	0.000	0.023	0.000	0.158	0.123	0.004	0.308	0.015	0.026	0.041	0.651
33	0.000	0.062	0.000	0.103	0.141	0.000	0.305	0.003	0.051	0.053	0.641
34	0.000	0.062	0.000	0.103	0.141	0.000	0.305	0.003	0.051	0.053	0.641
35	0.000	0.062	0.000	0.103	0.141	0.000	0.305	0.003	0.051	0.053	0.641
36	0.000	0.062	0.000	0.103	0.141	0.000	0.305	0.003	0.051	0.053	0.641
37	0.000	0.062	0.000	0.103	0.141	0.000	0.305	0.003	0.051	0.053	0.641
38	0.000	0.062	0.000	0.103	0.141	0.000	0.305	0.003	0.051	0.053	0.641
Total	0.098	0.254	0.000	0.173	0.126	0.004	0.654	0.014	0.032	0.047	0.299

Appendix C. 3. Weekly stock-specific catch of wild and planted Taku River and Port Snettisham sockeye salmon harvested in the Alaskan District 111 commercial drift gillnet fishery, 2002.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include catches inside Port Snettisham

		Little Trapper		Wild	Tatsamenie		Total			Wild	U.S.
Week	Kuthai	Wild	Planted	Taku	Wild	Planted	Taku	Crescent	Speel	Snett.	Hatchery
25	7,946	997	0	767	0	0	9,710	29	108	137	9
26	5,238	6,354	0	2,993	0	34	14,619	29	132	161	62
27	2,429	8,452	0	2,869	1,346	101	15,197	92	9	101	389
28	896	17,036	0	7,039	4,538	10	29,519	505	410	915	1,428
29	634	6,480	0	7,653	5,303	156	20,226	1,659	1,298	2,957	11,179
30	331	2,533	0	2,905	2,689	28	8,486	0	483	483	6,562
31	0	2,891	0	4,571	6,655	293	14,410	93	2,810	2,903	24,228
32	0	210	0	1,434	1,112	38	2,794	136	238	374	5,905
33	0	181	0	301	412	0	895	8	149	157	1,881
34	0	119	0	198	271	0	589	5	98	103	1,237
35	0	37	0	61	83	0	180	2	30	32	379
36	0	13	0	22	30	0	65	1	11	11	137
37	0	4	0	7	9	0	20	0	3	4	42
38	0	0	0	0	0	0	1	0	0	0	1
39	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0
Total	17,474	45,308	0	30,819	22,449	660	116,711	2,559	5,779	8,337	53,440

Appendix C. 4. Weekly salmon catch and effort in the Canadian commercial fishery in the Taku River, 2002.

		Catch						Effort		
	Start	Chinook						Average	Days	Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Fished	Days
25	16-Jun	180	72	1,869	0	0	0	8.00	3.00	24.00
26	23-Jun	743	116	5,394	0	0	0	8.50	4.00	34.00
27	30-Jun	392	70	5,131	6	0	0	10.25	4.00	41.00
28	7-Jul	167	30	5,668	53	0	0	11.50	4.00	46.00
29	14-Jul	63	3	6,733	294	0	0	9.40	5.00	47.00
30	21-Jul	13	0	1,780	431	0	0	7.50	4.00	30.00
31	28-Jul	1	0	1,828	717	0	0	9.00	3.00	27.00
32	4-Aug	2	0	2,493	1,337	0	0	10.00	3.00	30.00
33	11-Aug	0	0	157	244	0	0	2.33	3.00	7.00
34	18-Aug	open with no fishing effort								
35	25-Aug									
36	1-Sep									
37	8-Sep									
38	15-Sep									
39	22-Sep									
40	29-Sep									
41	6-Oct									
42	13-Oct									
43	20-Oct									
44	27-Oct									
Total		1,561	291	31,053	3,082	0	0		33.00	286.00

Appendix C. 5. Weekly stock proportions of sockeye salmon harvested in the Canadian commercial fishery in the Taku River, 2002.

Data based on analysis of scale patterns and thermal marks.

	Start		Little Trapper			Tatsamenie	
Week	Date	Kuthai	Wild	Planted	Mainstem	Wild	Planted
25	16-Jun	0.910	0.000	0.000	0.090	0.000	0.000
26	23-Jun	0.774	0.176	0.000	0.049	0.000	0.000
27	30-Jun	0.422	0.424	0.000	0.154	0.000	0.000
28	7-Jul	0.190	0.721	0.000	0.089	0.000	0.000
29	14-Jul	0.105	0.665	0.000	0.214	0.016	0.000
30	21-Jul	0.000	0.319	0.000	0.483	0.188	0.011
31	28-Jul	0.000	0.260	0.000	0.350	0.391	0.000
32	4-Aug	0.000	0.223	0.000	0.487	0.280	0.010
33	11-Aug	0.000	0.083	0.000	0.439	0.452	0.025
Total		0.316	0.428	0.000	0.192	0.062	0.002

Appendix C. 6. Weekly stock-specific catch of sockeye salmon in the Canadian commercial fishery in the Taku River, 2002.

Data based on analysis of scale patterns and thermal marks.

	Start		Little Trapper			Tatsamenie	
Week	Date	Kuthai	Wild	Planted	Mainstem	Wild	Planted
25	16-Jun	1,700	0	0	169	0	0
26	23-Jun	4,177	950	0	267	0	0
27	30-Jun	2,165	2,178	0	788	0	0
28	7-Jul	1,075	4,088	0	505	0	0
29	14-Jul	709	4,477	0	1,439	108	0
30	21-Jul	0	568	0	859	334	19
31	28-Jul	0	475	0	639	714	0
32	4-Aug	0	556	0	1,213	698	26
33	11-Aug	0	13	0	69	71	4
Total		9,826	13,305	0	5,948	1,925	49

Appendix C. 7. Weekly salmon catch and effort in the Canadian test and stock assessment fisheries in the Taku River, 2002.

		Catch						Effort		
	Start	Chinook						Average	Days	Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Fished	Days
18	28-Apr	98	9	0	1	0	0	1.00	7	7.0
19	5-May	151	12	0	0	0	0	1.00	7	7.0
20	12-May	195	39	0	0	0	0	1.00	7	7.0
21	19-May	298	59	0	0	0	0	1.00	7	7.0
22	26-May	250	72	1	0	0	0	1.00	7	7.0
23	2-Jun	229	111	114	0	0	0	1.00	7	7.0
24	9-Jun	90	53	400	0	0	0	1.00	7	7.0
35	25-Aug	0	0	3	0	0	0	1.00	1	1.0
36	1-Sep	0	0	0	17	0	0	2.00	7	14.0
37	8-Sep	0	0	0	5	0	0	2.00	7	14.0
38	15-Sep	0	0	0	6	0	0	2.14	7	15.0
39	22-Sep	0	0	0	2	0	0	1.71	7	12.0
40	29-Sep	0	0	0	1	0	0	2.00	4	8.0
41	6-Oct	0	0	0	0	0	0	2.00	4	8.0
Total		1,311	355	518	32	0	0		86.0	121.0
released		1,132								

Appendix C. 8. Mark-recapture estimate of above border run of sockeye, and coho salmon in the Taku River, 2002.

Recovery Week	Start Date	Above Border Run	Canadian Harvests Commercial	Test	Aboriginal	Recreational	Above Border Escapement
Inseason large Chinook Estimates							
19	5-May	2,321		467			1,855
20	12-May	10,190		365			10,045
21	19-May	11,068		550			10,875
22	26-May	9,384		469			9,474
23	2-Jun	1,691		429			1,731
24	9-Jun	7,208		169			7,469
Inseason Estimate		41,617	1,444	2,457	37		39,594
Final escapement estimate							55,044 SE 11,087
Sockeye							
22	26-May	214					214
23	2-Jun	2,247		115			2,132
24	9-Jun	3,996		400			3,596
25	16-Jun	19,230	1,869	0			17,361
26	23-Jun	18,692	5,394	0			13,298
27	30-Jun	19,467	5,131	0			14,336
28	7-Jul	20,247	5,668	0			14,579
29	14-Jul	15,208	6,733	0			8,475
30	21-Jul	15,092	1,780	0			13,312
31	28-Jul	2,088	1,828	0			260
32	4-Aug	8,972	2,650	3			6,319
33	11-Aug	1,640					1,640
34	18-Aug	4,163					4,163
35	25-Aug	2,365					2,365
36	1-Sep	1,352					1,352
37	8-Sep	260					260
M-R Estimate		135,233					
95% C.I.	127,768	142,698					
Total Estimate		135,233	31,053	518	155		103,507
Coho							
27-36	30-Jun	85,230	3,082	1	0		82,147
37-41	8-Sep	137,932	0	31	688		137,213
M-R Estimate		223,162					
95% C.I.	167,012	279,312					
Total Estimate		223,162	3,082	32	688		219,360

Appendix C. 9. Daily counts of adult sockeye salmon passing through Tatsamenie weir, 2002.

Date	Count	Cumulative	
		Count	Percent
3-Aug	--- Weir Fish Tight ---		
4-Aug	0	0	0.0
5-Aug	0	0	0.0
6-Aug	0	0	0.0
7-Aug	0	0	0.0
8-Aug	0	0	0.0
9-Aug	0	0	0.0
10-Aug	3	3	0.1
11-Aug	83	86	1.6
12-Aug	7	93	1.7
13-Aug	54	147	2.7
14-Aug	80	227	4.1
15-Aug	16	243	4.4
16-Aug	7	250	4.5
17-Aug	19	269	4.9
18-Aug	15	284	5.2
19-Aug	14	298	5.4
20-Aug	5	303	5.5
21-Aug	33	336	6.1
22-Aug	29	365	6.6
23-Aug	202	567	10.3
24-Aug	49	616	11.2
25-Aug	32	648	11.8
26-Aug	83	731	13.3
27-Aug	108	839	15.3
28-Aug	53	892	16.2
29-Aug	76	968	17.6
30-Aug	28	996	18.1
31-Aug	34	1,030	18.7
1-Sep	30	1,060	19.3
2-Sep	5	1,065	19.4
3-Sep	42	1,107	20.1
4-Sep	14	1,121	20.4
5-Sep	120	1,241	22.6
6-Sep	194	1,435	26.1
7-Sep	278	1,713	31.2
8-Sep	242	1,955	35.6
9-Sep	283	2,238	40.7
10-Sep	231	2,469	44.9
11-Sep	229	2,698	49.1
12-Sep	192	2,890	52.6
13-Sep	502	3,392	61.7
14-Sep	303	3,695	67.2
15-Sep	520	4,215	76.7
16-Sep	166	4,381	79.7
17-Sep	250	4,631	84.3
18-Sep	36	4,667	84.9
19-Sep	97	4,764	86.7
20-Sep	138	4,902	89.2
21-Sep	66	4,968	90.4
22-Sep	31	4,999	91.0
23-Sep	21	5,020	91.4
24-Sep	43	5,063	92.1
25-Sep	68	5,131	93.4
26-Sep	62	5,193	94.5
27-Sep	59	5,252	95.6
28-Sep	5	5,257	95.7
29-Sep	14	5,271	95.9
30-Sep	3	5,274	96.0
1-Oct	19	5,293	96.3
2-Oct	13	5,306	96.6
3-Oct	54	5,360	97.5
4-Oct	35	5,395	98.2
5-Oct	4	5,399	98.3
6-Oct	34	5,433	98.9
7-Oct	26	5,459	99.3
8-Oct	11	5,470	99.5
9-Oct	0	5,470	99.5
10-Oct	0	5,470	99.5
11-Oct	11	5,481	99.7
12-Oct	2	5,483	99.8
13-Oct	12	5,495	100.0
14-Oct	0	5,495	100.0
15-Oct	0	5,495	100.0
16-Oct	0	5,495	100.0
17-Oct	---- Weir Pulled ----		
Counts		5,495	
Outlet spawners		<15	
Fish removed for broodstock		-542 female -406 male -263 released -168 mortalities	
Total fish removed for broodstock		-1,379	
Spawners		4,091	

Appendix C. 10. Daily counts of adult sockeye salmon passing through Little Trapper Lake weir, 2002.

Date	Count	Cumulative Count	
18-Jul	----Weir Fish Tight ---	0	
19-Jul	0	0	
20-Jul	0	0	
21-Jul	0	0	
22-Jul	318	318	
23-Jul	585	903	
24-Jul	60	963	
25-Jul	3	966	
26-Jul	8	974	
27-Jul	52	1,026	
28-Jul	103	1,129	
29-Jul	54	1,183	
30-Jul	76	1,259	
31-Jul	235	1,494	
1-Aug	307	1,801	
2-Aug	206	2,007	
3-Aug	298	2,305	
4-Aug	428	2,733	
5-Aug	816	3,549	
6-Aug	1415	4,964	
7-Aug	1002	5,966	
8-Aug	730	6,696	
9-Aug	392	7,088	
10-Aug	342	7,430	
11-Aug	276	7,706	
12-Aug	190	7,896	
13-Aug		7,896	weir blown out
14-Aug		7,896	weir blown out
15-Aug		7,896	weir blown out
16-Aug		7,896	weir blown out
17-Aug		7,896	weir blown out
18-Aug		7,896	weir blown out
19-Aug	1	7,897	weir blown out
20-Aug		7,897	weir blown out
21-Aug	24	7,921	weir blown out
22-Aug	16	7,937	weir blown out
23-Aug	36	7,973	weir blown out
24-Aug			weir blown out
25-Aug			weir blown out
26-Aug			weir blown out
27-Aug			weir blown out
28-Aug			weir blown out
29-Aug			weir blown out
30-Aug			weir blown out
31-Aug			weir blown out
1-Sep			weir blown out
2-Sep			weir blown out
3-Sep			weir blown out
4-Sep			weir blown out
5-Sep			weir blown out
6-Sep			weir blown out
7-Sep			weir blown out
8-Sep			weir blown out
9-Sep			weir blown out
Total count			
Escapement		7,973	weir blown out

Appendix C. 11. Daily counts of adult sockeye salmon passing through the Kuthai Lake weir, 2002.

		Cumulative	
Date	Count	Count	Percent
4-Jul	---Weir Fish Tight ---		
5-Jul	7	7	0.09
6-Jul	6	13	0.17
7-Jul	52	65	0.83
8-Jul	35	100	1.28
9-Jul	39	139	1.78
10-Jul	291	430	5.51
11-Jul	313	743	9.53
12-Jul	279	1,022	13.10
13-Jul	611	1,633	20.94
14-Jul	733	2,366	30.34
15-Jul	213	2,579	33.07
16-Jul	683	3,262	41.83
17-Jul	352	3,614	46.34
18-Jul	510	4,124	52.88
19-Jul	576	4,700	60.26
20-Jul	128	4,828	61.91
21-Jul	379	5,207	66.76
22-Jul	341	5,548	71.14
23-Jul	316	5,864	75.19
24-Jul	226	6,090	78.09
25-Jul	151	6,241	80.02
26-Jul	307	6,548	83.96
27-Jul	250	6,798	87.17
28-Jul	123	6,921	88.74
29-Jul	112	7,033	90.18
30-Jul	122	7,155	91.74
31-Jul	144	7,299	93.59
1-Aug	125	7,424	95.19
2-Aug	92	7,516	96.37
3-Aug	32	7,548	96.78
4-Aug	42	7,590	97.32
5-Aug	2	7,592	97.35
6-Aug	0	7,592	97.35
7-Aug	0	7,592	97.35
8-Aug	11	7,603	97.49
9-Aug	2	7,605	97.51
10-Aug	14	7,619	97.69
11-Aug	11	7,630	97.83
12-Aug	11	7,641	97.97
13-Aug	24	7,665	98.28
14-Aug	6	7,671	98.36
15-Aug	4	7,675	98.41
16-Aug	15	7,690	98.60
17-Aug	5	7,695	98.67
18-Aug	4	7,699	98.72
19-Aug	13	7,712	98.88
20-Aug	12	7,724	99.04
21-Aug	27	7,751	99.38
22-Aug	1	7,752	99.40
23-Aug	0	7,752	99.40
24-Aug	1	7,753	99.41
25-Aug	1	7,754	99.42
26-Aug	18	7,772	99.65
27-Aug	2	7,774	99.68
28-Aug	10	7,784	99.81
29-Aug	15	7,799	100.00
30-Aug			
31-Aug			
1-Sep			
2-Sep			
3-Sep	---- Weir Pulled ---		
Total count		7,799	
Aboriginal food fish harvest [a]		-102	
Escapement		7,697	

Appendix C. 12. Daily counts of large (>659mm MEF length) Chinook salmon carcasses at the Nakina River weir, 2002.

	Count			Cumulative	
Date	Female	Male	Combined	Count	Percent
31-Jul					
1-Aug					
2-Aug	5	5	10	10	0.01
3-Aug	25	32	57	67	0.05
4-Aug	28	52	80	147	0.10
5-Aug	27	53	80	227	0.15
6-Aug	32	60	92	319	0.21
7-Aug	25	46	71	390	0.26
8-Aug	27	88	115	505	0.34
9-Aug	40	77	117	622	0.42
10-Aug	20	49	69	691	0.47
11-Aug	32	73	105	796	0.54
12-Aug	40	112	152	948	0.64
13-Aug	47	105	152	1100	0.74
14-Aug	29	101	130	1230	0.83
15-Aug	30	79	109	1339	0.90
16-Aug	9	47	56	1395	0.94
17-Aug	12	47	59	1454	0.98
18-Aug	1	16	17	1471	0.99
19-Aug	1	3	4	1475	0.99
20-Aug	1	6	7	1482	1.00
21-Aug	1	3	4	1486	1.00
22-Aug					
23-Aug					
Total	432	1,054	1,486		

Appendix D. 1. Salmon catches and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet) commercial drift gillnet fishery, 1960-2002.

S. Chum and F. Chum refer to Summer and Fall runs of these fish, fish harvested prior to week 34 are considered summer chum, and fish harvested in week 34 and beyond are considered fall chum.
Days open are for the entire district and include openings to harvest spawner chinook salmon, 1960-1975.

	Catch						Effort	
Year	Chinook	Sockeye	Coho	Pink	S. Chum	F. Chum	Boat Days	Days Open
District 111 Catches								
1960	8,810	42,819	22,374	33,155	8,754	33,098		60.0
1961	7,434	45,981	15,486	41,455	8,578	15,855		62.0
1962	5,931	36,745	15,661	17,280	7,453	13,182		52.0
1963	2,652	24,119	10,855	21,392	12,335	7,779		54.0
1964	2,509	34,140	29,315	26,593	4,970	7,883		56.0
1965	4,170	27,569	32,667	2,768	3,842	7,691		63.0
1966	4,829	33,925	26,065	23,833	5,015	30,118		64.0
1967	5,417	17,735	40,391	12,372	2,183	20,651		53.0
1968	4,904	19,501	39,103	67,365	5,747	16,143		60.0
1969	6,986	41,169	10,802	73,927	4,851	10,198	1,518	41.5
1970	3,357	50,922	44,960	197,017	19,593	90,797	2,688	53.0
1971	6,958	66,181	41,830	31,484	31,813	59,332	3,053	55.0
1972	10,955	80,404	49,780	144,339	67,126	80,831	3,103	51.0
1973	9,799	85,317	35,453	58,186	33,296	75,949	3,286	41.0
1974	2,908	38,670	38,667	57,731	11,263	75,423	2,315	29.5
1975	2,182	32,513	1,185	9,567	2,091	587	1,084	15.5
1976	1,757	61,749	41,729	14,962	6,027	75,776	1,914	25.0
1977	1,068	70,097	54,917	88,578	8,995	52,107	2,258	27.0
1978	1,926	55,398	31,944	51,385	9,076	27,178	2,174	26.0
1979	3,701	122,148	16,194	152,836	5,936	55,261	2,269	28.8
1980	2,251	123,451	41,677	296,572	33,627	159,020	4,123	30.9
1981	1,721	49,942	26,711	254,856	22,546	53,892	2,687	30.0
1982	3,057	83,625	29,072	109,297	14,867	22,741	2,433	35.5
1983	888	31,821	21,455	66,239	6,160	9,104	1,274	33.0
1984	1,773	77,233	33,836	145,971	45,811	40,930	2,757	52.5
1985	2,636	88,077	55,597	311,248	58,972	47,748	3,264	48.0
1986	2,584	73,061	30,512	16,568	29,909	28,883	2,129	32.8
1987	2,076	75,212	35,219	363,439	57,280	64,380	2,514	34.8
1988	1,779	38,923	44,881	157,831	80,307	59,271	2,135	32.0
1989	1,811	74,019	51,812	180,597	18,022	18,955	2,333	41.0
1990	3,480	126,884	67,530	153,036	112,336	33,463	3,188	38.3
1991	3,217	109,877	126,436	74,183	147,404	13,771	4,145	57.0
1992	2,341	135,411	172,662	314,445	97,725	14,802	4,550	50.0
1993	6,748	171,556	65,536	17,081	156,033	10,447	3,827	43.0
1994	5,047	105,861	188,501	401,525	198,002	16,169	5,078	66.0
1995	4,660	103,377	83,626	41,269	339,178	10,920	4,034	49.0
1996	2,659	199,014	33,633	12,660	347,612	6,455	3,229	46.0
1997	2,804	94,745	3,515	51,424	173,804	3,060	2,107	33.0
1998	794	69,677	28,713	168,283	291,416	4,695	3,070	48.0
1999	1,841	79,425	17,273	59,316	429,213	4,639	2,841	59.0
2000	1,137	168,272	7,546	54,716	665,582	3,013	2,919	40.0
2001	1,696	290,450	22,529	122,829	235,276	1,693	4,731	54.0
Averages								
60-01	3,697	79,929	42,563	107,134	90,953	32,950	2,880	44.58
92-01	2,973	141,779	62,353	124,355	293,384	7,589	3,639	48.90
2002	1,840	178,488	39,823	77,562	230,092	929	4,101	61.00

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	Catch						Effort	
							Boat	Days
Year	Chinook	Sockeye	Coho	Pink	S. Chum	F. Chum	Days	Open
Subdistrict 111-32 Catches (Taku Inlet)								
1960	8,763	26,641	20,282	26,777	4,566	28,720	1,680	60.0
1961	7,269	30,805	14,618	34,615	6,863	14,876	2,901	62.0
1962	5,719	25,969	13,699	10,006	5,418	11,812	1,568	52.0
1963	2,547	16,079	9,406	18,102	8,085	7,071	1,519	51.0
1964	2,482	28,873	28,603	22,177	3,919	7,822	1,491	56.0
1965	4,146	23,828	32,382	2,641	3,604	7,691	1,332	60.0
1966	4,817	28,301	24,153	22,490	4,350	27,327	1,535	58.0
1967	5,351	14,537	39,983	11,619	1,569	20,463	1,663	50.0
1968	4,862	16,952	37,570	55,527	4,646	15,597	2,420	60.0
1969	6,874	38,260	10,131	66,991	4,233	9,926	1,413	42.0
1970	3,073	41,476	37,587	143,886	14,208	76,795	2,425	53.0
1971	6,753	62,459	38,571	30,765	31,110	54,696	2,849	55.0
1972	9,633	62,877	38,568	78,673	45,955	60,097	2,797	51.0
1973	9,525	80,063	29,770	55,234	30,817	61,025	3,135	41.0
1974	2,280	26,256	27,670	32,684	6,469	51,063	1,741	30.0
1975	1,998	28,201	429	8,084	1,639	31	986	15.0
1976	1,693	51,674	31,641	11,868	3,766	42,674	1,582	23.0
1977	754	47,512	48,403	67,072	5,436	43,595	1,879	27.0
1978	1,642	43,795	21,620	41,624	7,142	18,101	1,738	24.0
1979	3,016	103,043	12,741	114,324	4,317	46,142	2,011	29.0
1980	1,986	108,577	35,814	241,085	25,779	131,126	3,634	31.0
1981	1,325	39,963	20,936	98,524	10,407	40,212	1,740	22.0
1982	2,841	75,012	24,761	77,942	11,558	18,363	2,130	36.0
1983	689	25,957	17,665	40,996	3,171	7,813	1,065	31.0
1984	1,414	59,229	25,951	83,028	28,214	27,967	2,120	39.0
1985	2,152	70,160	45,106	176,710	35,897	40,530	2,116	37.0
1986	1,877	60,106	26,474	9,772	14,646	24,790	1,413	30.0
1987	1,534	54,436	23,342	200,203	31,992	28,891	1,517	30.0
1988	949	23,752	33,159	41,625	25,969	27,010	1,213	29.0
1989	1,606	68,104	44,034	141,385	15,254	15,491	1,909	36.0
1990	2,432	110,006	60,078	101,168	88,350	29,099	2,879	38.0
1991	2,614	96,006	118,902	44,347	97,577	12,279	3,324	52.0
1992	1,672	103,238	152,598	180,340	57,153	11,649	3,407	43.0
1993	4,413	144,982	58,062	8,801	101,356	7,760	3,372	43.0
1994	3,051	88,625	156,314	198,507	129,350	12,280	3,960	60.0
1995	3,497	81,266	70,826	18,469	192,557	8,786	3,061	45.0
1996	2,412	188,412	31,828	12,123	294,890	5,245	2,685	41.0
1997	2,724	84,115	2,993	38,794	143,354	1,936	1,761	30.0
1998	634	47,413	24,606	85,269	192,057	2,800	2,007	39.0
1999	1,762	68,914	14,086	43,958	327,706	2,643	2,563	58.0
2000	1,032	127,274	6,299	25,729	453,147	1,311	2,325	38.0
2001	1,290	179,683	12,647	49,174	141,715	1,012	3,635	55.0
Averages								
60-01	3,264	64,353	36,293	66,026	62,386	25,346	2,202	41.95
92-01	2,249	111,392	53,026	66,116	203,329	5,542	2,878	45.20
2002	1,546	113,110	30,501	40,283	108,171	671	2,792	54.00

Appendix D. 2. Stock proportions and catches of sockeye salmon in the Alaska District 111 commercial drift gillnet fishery, 1983-2002.

		Little Trapper			Tatsamenie		Total			Wild	U.S.
Week	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Taku	Crescent	Speel	Snett.	Planted
Proportions											
1983							0.755			0.245	
1984							0.758			0.242	
1985							0.838			0.162	
1986	0.061	0.266		0.303	0.204		0.834	0.090	0.076	0.166	
1987	0.078	0.234		0.376	0.031		0.720	0.157	0.123	0.280	
1988	0.118	0.158		0.305	0.082		0.663	0.266	0.071	0.337	
1989[a]	0.077	a		a	0.156		0.849	0.051	0.100	0.152	
1990	0.036	0.197		0.336	0.286		0.855	0.112	0.033	0.145	
1991	0.039	0.297		0.373	0.232		0.941	0.059	0.000	0.059	
1992	0.048	0.220		0.445	0.191		0.904	0.036	0.060	0.096	
1993	0.062	0.328		0.308	0.123		0.822	0.069	0.109	0.178	
1994	0.110	0.356		0.361	0.091		0.917	0.036	0.022	0.058	0.025
1995	0.046	0.214	0.010	0.428	0.153	0.029	0.880	0.018	0.075	0.093	0.026
1996	0.069	0.117	0.010	0.499	0.232	0.014	0.941	0.013	0.032	0.045	0.014
1997	0.067	0.170	0.011	0.282	0.286	0.011	0.826	0.027	0.026	0.053	0.120
1998	0.087	0.158	0.008	0.209	0.245	0.004	0.710	0.026	0.007	0.033	0.257
1999	0.176	0.259	0.003	0.235	0.119	0.005	0.797	0.049	0.023	0.072	0.131
2000	0.139	0.273	0.002	0.211	0.151	0.008	0.783	0.004	0.054	0.058	0.160
2001	0.076	0.130	0.000	0.268	0.207	0.031	0.713	0.014	0.032	0.046	0.241
Averages											
86-01	0.081	0.225	0.006	0.329	0.174	0.015	0.816	0.064	0.053	0.133	0.122
92-01	0.088	0.223	0.006	0.325	0.180	0.015	0.829	0.029	0.044	0.073	0.122
2002	0.098	0.254	0.000	0.173	0.126	0.004	0.654	0.014	0.032	0.047	0.299
Catches											
1983											
1984							24,025			7,796	
1985							58,543			18,690	
1986							73,809			14,268	
1987	4,489	19,441		22,104	14,900		60,934	6,610	5,516	12,127	
1988	5,893	17,594		28,286	2,352		54,124	11,814	9,274	21,088	
1989[a]	4,598	6,153		11,865	3,194		25,811	10,365	2,748	13,112	
1990	5,696	a		a	11,536		62,805	3,789	7,425	11,214	
1991	4,539	24,952		42,676	36,332		108,499	14,242	4,143	18,385	
1992	4,295	32,685		40,957	25,475		103,412	6,465	0	6,465	
1993	6,543	29,818		60,224	25,853		122,438	4,912	8,060	12,972	
1994	10,673	56,350		52,876	21,139		141,038	11,877	18,641	30,518	
1995	11,638	37,644		38,179	9,585		97,046	3,859	2,319	6,178	2,637
1996	4,788	22,109	1,017	44,278	15,767	3,049	91,008	1,901	7,741	9,642	2,727
1997	13,742	23,307	1,920	99,231	46,148	2,859	187,207	2,544	6,416	8,960	2,848
1998	6,345	16,105	1,031	26,694	27,107	1,006	78,288	2,558	2,510	5,068	11,389
1999	6,055	11,018	570	14,560	17,040	250	49,493	1,784	500	2,284	17,900
2000	14,016	20,596	247	18,680	9,421	367	63,327	3,879	1,814	5,693	10,405
2001	23,357	45,977	279	35,451	25,347	1,301	131,712	621	9,088	9,709	26,851
2002	22,042	37,862	0	77,938	60,109	9,057	207,008	4,097	9,331	13,428	70,014
Average[b]											
86-01	9,294	26,774	723	40,933	21,957	2,556	99,009	5,707	5,970	11,678	18,096
92-01	11,920	30,079	723	46,811	25,752	2,556	116,857	3,803	6,642	10,445	18,096
2002	17,474	45,308	0	30,819	22,449	660	116,711	2,559	5,779	8,337	53,440

[a] The Trapper and Mainstem groups were combined in the 1989 analysis and were 45,573 fish.

[b] Averages for individual stocks do not include 1989.

Appendix D. 3.Proportion of wild Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet catch by week, 1983-2002.

Data based on scale patterns and incidence of brain parasites and includes only wild fish (estimated from thermal mark analysis).

	Week										
Year	25	26	27	28	29	30	31	32	33	34	Total
1983		0.996	0.842	0.819	0.663	0.527	0.836	0.534	0.719	0.759	0.755
1984	0.970	0.956	0.843	0.670	0.588	0.712	0.728	0.809	0.726		0.758
1985	0.999	0.986	0.928	0.974	0.868	0.706	0.737	0.826	0.801		0.838
1986	0.938	0.953	0.873	0.880	0.852	0.777	0.851	0.757	0.893	0.739	0.834
1987		0.982	0.901	0.884	0.948	0.414	0.619	0.689	0.841	0.731	0.720
1988		0.964	0.886	0.889	0.510	0.643	0.677	0.528	0.478	0.346	0.663
1989	0.943	0.989	0.979	0.852	0.835	0.641	0.681	0.919	0.676		0.848
1990	0.874	0.935	0.904	0.773	0.782	0.863	0.943	0.939	0.878	0.862	0.855
1991	0.988	0.979	0.953	0.979	0.951	0.933	0.936	0.890	0.885	0.875	0.941
1992		0.978	0.985	0.956	0.916	0.943	0.893	0.858	0.766	0.766	0.904
1993		0.961	0.901	0.837	0.856	0.781	0.790	0.829	0.738	0.706	0.822
1994		1.000	0.981	0.973	0.967	0.870	0.835	0.938	0.804	0.901	0.917
1995	0.942	0.889	0.903	0.858	0.872	0.868	0.761	0.759	0.705	0.740	0.841
1996	1.000	0.998	0.909	0.974	0.950	0.991	0.914	0.945	0.879	0.804	0.953
1997	0.992	0.970	0.910	0.926	0.951	0.939	0.939	0.925	0.872	0.906	0.938
1998		0.964	0.974	0.978	0.971	0.949	0.948	0.942	0.997	0.857	0.955
1999		0.966	0.988	0.953	0.934	0.917	0.878	0.833	0.732	0.665	0.917
2000		0.973	0.962	0.958	0.929	0.898	0.872	0.907	0.908	0.858	0.931
2001	0.995	0.998	0.948	0.888	0.908	0.930	0.961	0.945	0.858	0.858	0.936
Average											
83-01	0.964	0.970	0.925	0.896	0.855	0.805	0.831	0.830	0.798	0.773	0.859
92-01	0.982	0.970	0.946	0.930	0.925	0.909	0.879	0.888	0.826	0.806	0.911
2002	0.986	0.989	0.993	0.970	0.872	0.946	0.829	0.880	0.851	0.851	0.933

Appendix D. 4. Salmon catch in the U.S. subsistence and personal use fisheries in the Taku River, 1967-2002.

The subsistence fishery was open 1967 to 1976 and 1985 and the personal use fishery was open
The harvests are miminum estimates because not all permits are filled out and returned.

	Catch					
Year	Chinook	Sockeye	Coho	Pink	Chum	Permits
1967	0	103	221	9	25	
1968	3	41	196	19	10	
1969	0	122	8	11	0	
1970	0	304	0	20	8	
1971	0	512	0	42	0	
1972	0	554	0	103	7	
1973	0	1,227	0	64	14	
1974	0	1,431	0	118	5	
1975	0	170	0	3	0	
1976	0	351	4	22	0	
1985	0	920	35	16	1	54
1989	25	562	57	591	16	75
1990	26	793	103	111	46	95
1991	25	800	86	97	2	88
1992	21	1,217	88	100	0	125
1993	9	1,201	25	93	3	128
1994	21	1,111	93	76	3	116
1995	18	990	97	40	6	106
1996	33	1,189	67	110	5	130
1997	16	1,053	27	86	1	123
1998	15	1,153	86	225	2	130
1999	22	1,254	44	105	3	147
2000	22	1,134	31	68	7	128
2001	8	1,462	22	195	11	163
Averages						
67-01	11	819	54	97	7	
92-01	19	1,176	58	110	4	130
2002	14	1,289	68	59	20	136

Appendix D. 5. Salmon catch and effort in the Canadian commercial fishery in the Taku River, 1979-2002.

	Catch						Effort	
	Chinook							
Year	Large	non large	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1979	97		13,578	6,006	13,661	15,474	599	50.0
1980	225		22,602	6,405	26,821	18,516	476	39.0
1981	159		10,922	3,607	10,771	5,591	243	31.3
1982	54		3,144	51	202	3	38	13.0
1983	156	400	17,056	8,390	1,874	1,760	390	64.0
1984	294	221	27,242	5,357	6,964	2,492	288	30.0
1985	326	24	14,244	1,770	3,373	136	178	16.0
1986	275	77	14,739	1,783	58	110	148	17.0
1987	127	106	13,554	5,599	6,250	2,270	280	26.0
1988	555	186	12,014	3,123	1,030	733	185	14.7
1989	895	139	18,545	2,876	695	42	271	25.3
1990	1,258	128	21,100	3,207	378	12	295	28.3
1991	1,177	432	25,067	3,415	296	2	284	25.0
1992	1,445	147	29,472	4,077	0	7	291	27.0
1993	1,619	171	33,217	3,033	16	15	363	34.0
1994	2,065	235	28,762	14,531	168	18	497	74.0
1995	1,577	298	32,640	13,629	2	1	428	51.1
1996	3,331	144	41,665	5,028	0	0	415	65.0
1997	2,731	84	24,003	2,594	0	1	394	47.0
1998	1,107	227	19,038	5,090	0	2	299	42.0
1999	908	257	20,681	4,416	0	0	300	34.0
2000	1,576	87	28,009	4,395	0	0	351	39.0
2001	1,458	118	47,660	2,568	0	0	382	41.5
Averages								
79-01	1,018	183	22,563	4,824	3,155	2,052	321	36
92-01	1,782	177	30,515	5,936	19	4	372	45
2002	1,561	291	31,053	3,082	0	0	286	33

Appendix D. 6. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery on the Taku River, 1986-2002.

Data based on scale pattern, brain parasite, and thermal mark analyses.

		Little Trapper			Tatsamenie		Total	Total
Year	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Wild	Planted
Proportions								
1986	0.111	0.397		0.350	0.143		1.000	
1987	0.062	0.201		0.649	0.088		1.000	
1988	0.143	0.417		0.343	0.098		1.000	
1989[a]	0.053	a		a	0.203		1.000	
1990	0.112	0.388		0.338	0.163		1.000	
1991	0.064	0.308		0.452	0.176		1.000	
1992	0.092	0.240		0.569	0.099		1.000	
1993	0.126	0.392		0.432	0.049		1.000	
1994	0.158	0.482		0.302	0.058		1.000	
1995	0.047	0.427	0.010	0.373	0.112	0.031	0.959	0.041
1996	0.105	0.221	0.008	0.442	0.215	0.010	0.982	0.018
1997	0.120	0.282	0.019	0.277	0.294	0.008	0.973	0.027
1998	0.225	0.207	0.028	0.254	0.283	0.003	0.969	0.031
1999	0.389	0.305	0.008	0.145	0.147	0.006	0.986	0.014
2000	0.172	0.205	0.000	0.326	0.282	0.016	0.984	0.016
2001	0.184	0.168	0.000	0.364	0.246	0.039	0.961	0.039
Averages[b]								
86-01	0.135	0.309		0.374	0.166		0.988	
92-01	0.162	0.293	0.010	0.348	0.179	0.016	0.981	0.027
2002	0.316	0.428	0.000	0.192	0.062	0.002	0.998	0.002
Catch								
1986	1,629	5,855		5,152	2,103		14,739	
1987	834	2,728		8,793	1,199		13,554	
1988	1,715	5,005		4,122	1,172		12,014	
1989[a]	990	a		a	3,763		18,545	
1990	2,355	8,183		7,131	3,431		21,100	
1991	1,601	7,721		11,327	4,418		25,067	
1992	2,699	7,085		16,764	2,924		29,472	
1993	4,192	13,036		14,347	1,641		33,217	
1994	4,544	13,858		8,684	1,676		28,762	
1995	1,528	13,934	331	12,185	3,659	1,003	31,306	1,334
1996	4,357	9,195	331	18,422	8,959	401	40,933	732
1997	2,891	6,758	456	6,637	7,060	201	23,346	657
1998	4,279	3,944	533	4,829	5,397	56	18,449	589
1999	8,044	6,314	171	2,992	3,034	126	20,384	297
2000	4,809	5,745	0	9,122	7,897	436	27,573	436
2001	8,748	8,005	0	17,330	11,709	1,868	45,792	1,868
Averages[b]								
86-01	3,451	7,824		9,856	4,378		25,266	
92-01	4,609	8,787	260	11,131	5,396	584	29,923	845
2002	9,826	13,305	0	5,948	1,925	49	31,004	49

[a] The Trapper and Mainstem groups were combined in the 1989 analysis with 13,792 fish or .744 proportion.

[b] Averages do not include 1989.

Appendix D. 7. Salmon catches in the Canadian Aboriginal fishery on the Taku River, 1980-2002.

Year	Chinook	Sockeye	Coho	Pink	Chum
1980	85	150	0	0	15
1981					
1982					
1983	9	0	0	0	0
1984	0	50	15	0	0
1985	4	167	22	0	0
1986	10	200	50	0	0
1987	0	96	113	0	0
1988	27	245	98	0	0
1989	6	53	146	0	0
1990	0	89	6	0	0
1991	0	150	20	0	0
1992	121	352	187	0	0
1993	25	140	8	0	0
1994	119	239	162	4	0
1995	70	71	109	0	7
1996	63	360	24	0	0
1997	103	349	96	0	0
1998	60	239	0	0	0
1999	50	382	471	0	0
2000	50	140	342	0	0
2001	125	210	500	0	25
Averages					
80-01	46	184	118	0	2
92-01	79	248	190	0	3
2002	37	155	688	0	0

Appendix D. 8. Salmon catch in the Canadian test fishery in the Taku River, 1987-2002.

	Catch					
	Chinook					
Year	Large	non large	Sockeye	Coho	Pink	Chum
1987			237	807		
1988	72		708	422	52	222
1989	31		207	1,011	0	13
1990	48		285	472	0	0
1991	0		163	2,004	3	295
1992	0		38	1,277	0	76
1993[a]	0		166	1,593	0	50
1994		There was no Canadian test fishery in 1994.				
1995		There was no Canadian test fishery in 1995.				
1996		There was no Canadian test fishery in 1996.				
1997	1 sockeye and 39 coho salmon caught in 1997 were released live.					
1998		There was no Canadian test fishery in 1998.				
1999	577	2	88	688	0	0
2000	1,312	87	319	710	0	0
2001	1,175	229	247	31	0	0
Averages						
87-01		357	246	902	6	73
2002	1,311	355	518	32	0	0

additional fish released

	Catch release					
	Chinook					
	Large	non large	Sockeye	Coho	Pink	Chum
1997			1	39		
1998						
1999	181					
2000	439					
2001	871		82	2,976		159
2002	1,132		161	3,767	7	11

[a] Incomplete harvest data.

Appendix D. 9. Taku River sockeye salmon run size, 1984-2002.

Run estimate does not include spawning escapements below the U.S./Canada border. The early season sockeye expansion is based on the proportion of fish wheel sockeye catch that occurs before the fishery opens.

	Above Border M-R		Expansion		Expanded					
Year	Run Estimate	Start Date	Method	Factor	Run Estimate	Canadian Catch	Escape.	U.S. Catch a	Total Run	Exploitation Rate
1984	133,414	17-Jun	Ave.(88-90&95-96) FW CPUE	0.056	141,254	27,292	113,962	58,543	199,796	0.430
1985	118,160	16-Jun	Ave.(88-90&95-96) FW CPUE	0.047	123,974	14,411	109,563	74,729	198,703	0.449
1986	104,162	22-Jun	Ave.(88-90&95-96) FW CPUE	0.095	115,045	14,939	100,106	60,934	175,980	0.431
1987	87,554	21-Jun	Ave.(88-90&95-96) FW CPUE	0.088	96,023	13,887	82,136	55,154	151,178	0.457
1988	86,629	19-Jun	1988 FW CPUE	0.065	92,641	12,967	79,674	25,811	118,452	0.327
1989	99,467	18-Jun	1989 FW CPUE	0.128	114,068	18,805	95,263	63,367	177,435	0.463
1990	117,385	10-Jun	1990 CPUE	0.002	117,573	21,474	96,099	109,292	226,865	0.576
1991	153,773	9-Jun	Ave.(88-90&95-96) FW CPUE	0.007	154,873	25,380	129,493	104,931	260,103	0.502
1992	162,003	21-Jun	Ave.(88-90&95-96) FW CPUE	0.032	167,376	29,862	137,514	123,655	291,031	0.527
1993	138,523	13-Jun	Ave.(88-90&95-96) FW CPUE	0.026	142,148	33,523	108,625	142,239	284,387	0.618
1994	129,119	12-Jun	Ave.(88-90&95-96) FW CPUE	0.019	131,580	29,001	102,579	98,157	229,737	0.553
1995	145,264	11-Jun	1995 FW CPUE	0.008	146,450	32,711	113,739	91,998	238,448	0.523
1996	132,322	9-Jun	1996 FW CPUE	0.017	134,651	42,025	92,626	188,396	323,047	0.713
1997	93,816	3-May	1997 FW CPUE	0.017	95,438	24,352	71,086	79,341	174,779	0.593
1998	89,992	2-May	No Expansion		89,992	19,277	70,715	50,646	140,638	0.497
1999	113,706	14-May	No Expansion		113,706	21,151	92,555	64,581	178,287	0.481
2000	115,693	14-May	No Expansion		115,693	28,468	87,225	132,846	248,539	0.649
2001	192,245	27-May	No Expansion		192,245	48,117	144,128	208,470	400,715	0.640
Averages										
84-01					126,929	25,429	101,501	96,283	223,212	0.545
92-01					132,928	30,856	102,072	118,033	250,961	0.580
2002	135,233	19-May	No expansion in 2002		135,233	31,726	103,507	118,000	253,233	0.591

Appendix D. 10. Sockeye salmon escapement estimates of Taku River and Port Snettisham sockeye salmon stocks, 1979-2002.

Appendix D. 11. Taku River Chinook salmon run size, 1989-2002.

Spawners equals escapement to the weir minus fish collected for brood stock

	Little Trapper		Little Tatsamenie		Tatsamenie		King Salmon Weir	Kuthai Lake Weir	Nahlin River Weir	Crescent Lake		Speel Lake	
Year	Count	Escapement	Escapement	Spawners	Escapement	Spawners				Escapement	Spawners	Escapement	Spawners
1980								1,658					
1981								2,299					
1982													
1983[a]	7,402	7,402								19,422	19,422	10,484	10,484
1984	13,084	13,084								6,707	6,707	9,764	9,764
1985[a]	14,889	14,889	13,093	13,093						7,249	7,249	7,073	7,006
1986	13,820	13,820	11,446	11,446						3,414	3,414	5,857	5,457
1987[a]	12,007	12,007	2,794	2,794						7,839	7,839	9,319	9,319
1988	10,637	10,637	2,063	2,063					**138**	**1,199**	1,199	969	710
1989	9,606	9,606	3,039	3,039						**1,109**	775	12,229	10,114
1990	9,443	7,777	5,736	4,929					2,515	**1,262**	757	**18,064**	16,867
1991	22,942	21,001	8,381	7,585						**9,208**	8,666	299	299
1992	14,372	12,732	6,576	5,681				**1,457**	**297**	**22,674**	21,849	9,439	8,136
1993	17,432	16,685	5,028	4,230				**6,312**	2,463				
1994	13,438	12,691	4,371	3,578				5,427	960				
1995	11,524	11,524			5,780	4,387		3,310	3,711			**16,208**	14,260
1996	5,483	5,483			10,381	8,026		4,243	2,538			20,000	18,610
1997	5,924	5,924			8,363	5,981		5,746	1,857			**4,999**	
1998	8,717	8,717			5,997	4,735		1,934	345			**13,358**	
1999	11,805	11,805			2,104	1,888		10,042				**10,277**	
2000	11,551	11,551			7,575	6,094		4,096				**6,764**	
2001	16,860	16,860			22,575	21,094		1,663	935			**8,060**	
Averages													
83-01	12,155	11,800	6,253	5,844								9,598	
92-01	11,711	11,397			8,968	7,458		4,730	1,739			11,138	
2002	**7,973**	**7,973**			5,495	4,091		**7,697**				**5,016**	

[a] Weir count plus spawning ground survey; Trapper 1983, 1985, 1987

Minimum estimates of run size and incomplete counts are bold.

Appendix D. 12. Aerial survey index escapement counts of Taku River Chinook salmon, 1975-2002.

Year	Kowatua	Tatsatua	Dudidontu	Tseta	Nakina	Nahlin	Total Index Count without Tseta
1975			15		1,800	274	2,089
1976	341	620	40		3,000	725	4,726
1977	580	573	18		3,850	650	5,671
1978	490	550		21	1,620	624	3,284
1979	430	750	9		2,110	857	4,156
1980	450	905	158		4,500	1,531	7,544
1981	560	839	74	258	5,110	2,945	9,528
1982	289	387	130	228	2,533	1,246	4,585
1983	171	236	117	179	968	391	1,883
1984[ab]	279	616		176	1,887	951	3,733
1985	699	848	475	303	2,647	2,236	6,905
1986	548	886	413	193	3,868	1,612	7,327
1987	570	678	287	180	2,906	1,122	5,563
1988	1,010	1,272	243	66	4,500	1,535	8,560
1989	601	1,228	204	494	5,141	1,812	8,986
1990	614	1,068	820	172	7,917	1,658	12,077
1991	570	1,164	804	224	5,610	1,781	9,929
1992	782	1,624	768	313	5,750	1,821	10,745
1993	1,584	1,491	1,020	491	6,490	2,128	12,713
1994	410	1,106	573	614	4,792	2,418	9,299
1995	550	678	731	786	3,943	2,069	7,971
1996	1,620	2,011	1,810	1,201	7,720	5,415	18,576
1997	1,360	1,148	943	648	6,095	3,655	13,201
1998	473	675	807	360	2,720	1,294	5,969
1999	561	431	527	221	1,900	532	3,951
2000	702	953	482	160	2,907	728	5,772
2001	1,050	1,024	479	202	1,552	935	5,040
Averages							
75-01	665	914	478	340	3,846	1,591	7,834
92-01	909	1,114	814	500	4,387	2,100	9,823
2002	945	1,145	834	192	4,066	1,099	8,089

[a] Partial survey. Tseta 84

[b] Extrapolated results. Nahlin 84

Appendix D. 13. Taku River (above border) coho salmon run size, 1987-2002.

The run estimates do not include spawning escapements below the U.S./Canada border. Estimates are expanded if mark-recapture activities terminate prior to run completion.

	Above Border M-R		Expansion							Total
Year	Run Estimate	End Date	Method	Factor	Expanded Estimate	Canadian Catch	Escape.	U.S. Catch	Total Run	Exploitation Rate
1987	43,750	20-Sep	Test Fish CPUE	1.42	61,976	6,519	55,457			
1988	43,093	18-Sep		1.00	43,093	3,643	39,450			
1989	60,841	1-Oct		1.00	60,841	4,033	56,808			
1990	75,881			1.00	75,881	3,685	72,196			
1991	132,923			1.00	132,923	5,439	127,484			
1992	50,557	5-Sep	District 111-32 CPUE	1.79	90,394	5,541	84,853	96,371	186,677	0.545
1993	62,076	11-Sep	District 111-32 CPUE	1.84	114,091	4,634	109,457	97,783	211,849	0.483
1994	98,643	24-Sep	District 111-32 CPUE	1.13	111,036	14,693	96,343	228,700	339,643	0.716
1995	61,738	30-Sep	District 111-32 CPUE	1.12	69,448	13,738	55,710	111,668	181,019	0.692
1996	44,172	28-Sep	District 111-32 CPUE	1.12	49,687	5,052	44,635	44,596	94,216	0.526
1997	35,035	27-Sep	District 111-32 CPUE	1.00	35,035	2,690	32,345	15,852	50,860	0.364
1998	49,290	26-Sep	District 111-32 CPUE	1.35	66,472	5,090	61,382	53,454	119,840	0.488
1999	59,052	3-Oct	Troll CPUE	1.12	66,343	5,575	60,768	50,833	117,132	0.481
2000	70,147	2-Oct	no expansion	1.00	70,147	5,447	64,700	39,002	105,537	0.387
2001	107,493	5-Oct	no expansion	1.00	107,493	3,099	104,394	55,286	160,883	0.351
Averages										
87-01	66,313	9/24		1.19	76,991	5,921	71,070	78,751	156,766	
92-01	63,820	9/25		1.25	78,015	6,549	71,465	78,751	156,766	0.503
2002	223,162	8-Oct	Troll CPUE	1.00	223,162	3,802	219,360	80,000	303,162	0.276

Appendix D. 14. Escapement counts of Taku River coho salmon, 1984-2002.

Counts are for age-.1 fish and do not include jacks. Because of variability between methods, visibility, observers, and timing, these counts are not an index of run strength.

	Yehring Creek		Sockeye Creek	Johnson Creek	Fish Creek	Flannigan Slough	Tatsamenie River	Hacket River	Dudidontu River	Upper Nahlin River	
Year	Weir	Aerial	Aerial	Ar/Foot	Aerial	Aerial	Weir	Weir	Aerial	Aerial	Weir
1984		2,900	275	235	700	1,480					
1985		560	740	150	1,000	2,320	**201**	1,031			
1986	2,116[a]	1,200	**174**	70	**53**	**1,095**	**344**	2,723	108	318	
1987	1,627[a]	**565**	**980**	150	250	**2,100**	**173**	1,715	276	165	
1988	1,423	**658**	**585**	500	**1,215**	**1,308**	663[a]	1,260	367	694	1,322
1989	**1,570**	600	400	400	235	1,670	712[a]		115	322	
1990	**2,522**	220	**193**		**425**	**414**	669[a]		25	256	
1991		**475**	**399**	120	**1,378**	**1,348**	1,101		458	**176**	
1992		**1,267**	**594**	654	478	1,288	730				**970**[a]
1993		**250**	130	90	380	70	**88**				**326**
1994		500	60	450	200	50	168				**2,112**
1995		70	230	170	132	421	**62**				
1996		35	28	50	250	278	**21**				
1997		500	10	550	600						
1998		280		300	450						
1999		1,050			400						
2000		450		500	1,800						
Surveys Discontinued											

[a] Weir count combined with spawning ground count. Tatsamenie 88-90, Yehring 86-87, Nahlin 92.

Bold--Incomplete count or minial estimates

Appendix D. 15. Canyon Island fish wheel salmon counts and periods of operation on the Taku River, 1983-2002.

		Catch							
							Pink		
Year	Period of Operation	Chinook	Sockeye	Coho	Pink	Chum	even year	odd year	Steelhead
1984	6/15-9/18	138	2,334	889	20,751	316	20,751		
1985	6/16-9/21	184	3,601	1,207	27,670	1,376		27,670	
1986	6/14-8/25	571	5,808	758	7,256	80	7,256		
1987	6/15-9/20	285	4,307	2,240	42,786	1,533		42,786	34
1988	5/11-9/19	1,436	3,292	2,168	3,982	1,089	3,982		34
1989	5/05-10/01	1,811	5,650	2,243	31,189	645		31,189	38
1990	5/03-9/23	1,972	6,091	1,860	13,358	748	13,358		43
1991	6/08-10/15	680	5,102	4,922	23,553	1,063		23,553	138
1992	6/20-9/24	212	6,279	2,103	9,252	189	9,252		22
1993	6/12-9/29	562	8,975	2,552	1,625	345		1,625	16
1994	6/10-9/21	906	6,485	4,792	27,100	367	27,100		107
1995	5/4-9/27	1,535	6,228	2,535	1,712	218		1,712	61
1996	5/3-9/20	1,904	5,919	1,895	21,583	388	21,583		68
1997	5/3-10/1	1,321	5,708	1,665	4,962	485		4,962	103
1998	5/2-9/15	894	4,230	1,777	23,347	179	23,347		119
1999	5/3-10/3	440	4,636	1,848	23,503	164		23,503	119
2000	4/23-10/3	1,211	5,865	1,877	6,529	423	6,529		160
2001	4/23-10/5	1,262	6,201	2,380	9,134	250		9,134	125
Averages									
84-01		962	5,373	2,206	16,627	548	14,795	18,459	79
92-01		1,025	6,053	2,342	12,875	301	17,562	8,187	90
2002	4/24-10/7	1,578	5,812	3,766	5,672	205	5,672		87

Appendix E. 1. Weekly salmon catch and effort in the lower Alsek River fisheries, 2002.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
Test Fishery									
Commercial Fishery									
23	2-Jun	188	418	0	0	0	11	1.0	11.0
24	9-Jun	334	1,996	0	0	0	11	2.0	22.0
25	16-Jun	126	1,696	0	0	0	10	2.0	20.0
26	23-Jun	31	2,089	0	0	0	9	2.0	18.0
27	30-Jun	11	780	0	0	0	8	1.0	8.0
28	7-Jul	7	4,197	0	0	1	9	3.0	27.0
29	14-Jul	1	4,659	0	0	0	10	3.0	30.0
30	21-Jul	0	530	0	0	0	9	1.0	9.0
31	28-Jul	2	231	1	0	0	5	1.0	5.0
32	4-Aug	0	161	3	0	0	6	1.0	6.0
33	11-Aug						0	1.0	0.0
34	18-Aug	0	47	86	0	0	3	3.0	9.0
35	25-Aug	0	58	742	0	0	4	3.0	12.0
36	1-Sep	0	44	2,561	0	0	4	4.0	16.0
37	8-Sep	0	10	3,665	0	0	5	5.5	27.5
38	15-Sep	0	2	2,088	0	0	4	7.0	28.0
39	22-Sep	0	0	379	0	0	3	7.0	21.0
Total		700	16,918	9,525	0	1	111	73	270

Appendix E. 2. Weekly salmon catch and effort in the Canadian Aboriginal and sport fisheries in the Alsek River, 2002.

		Chinook				Sockeye				Coho			
		Recreational				Recreational				Recreational			
Week	Date	Kept[a]	Released[a]	Aborigina	Total[b]	Kept	Released	Aborigina	Total[b]	Kept	Released	Aborigina	Total[b]
24	9-Jun	1	0	0	1	0	0		0	0	0	0	0
25	16-Jun	0	0	0	0	0	0	0	0	0	0	0	0
26	23-Jun	5	6	1	6	0	5	1	1	0	0	0	0
27	30-Jun	37	29	23	60	1	9	326	327	0	0	0	0
28	7-Jul	62	36	16	78	7	4	239	246	0	0	0	0
29	14-Jul	62	46	19	81	5	0	75	80	0	0	0	0
30	21-Jul	23	24	25	48	5	0	53	58	0	0	0	0
31	28-Jul	3	2	17	20	2	1	63	65	0	0	0	0
32	4-Aug	3	2	14	17	0	0	212	212	0	0	0	0
33	11-Aug	1	0	1	2	1	1	112	113	0	0	0	0
34	18-Aug	0	0	4	4	3	0	627	630	0	0	0	0
35	25-Aug	0	0	0	0	7	1	160	167	0	0	0	0
36	1-Sep	0	0	0	0	3	2	69	72	9	14	0	9
37	8-Sep	0	0	0	0	3	4	39	42	0	5	0	0
38	15-Sep	0	0	0	0	7	5	15	22	4	0	0	4
39	22-Sep	0	0	0	0	9	21	12	21	8	21	6	14
40	29-Sep	0	0	0	0	3	4	1	4	49	17	0	49
41	6-Oct	0	0	0	0	1	1	0	1	114	30	0	114
42	13-Oct	0	0	0	0	1	0	0	1	90	22	0	90
43	20-Oct	0	0	0	0	3	0	0	3	5	0	0	5
44	27-Oct	0	0	0	0	0	0	0	0	2	0	0	2
45	3-Nov	0	0	0	0	0	0	0	0	1	0	0	1
46	10-Nov	0	0	0	0	0	0	0	0	1	2	0	1
Klukshu Village Trap								190	190				
Total		197	145	120	317	61	58	2,194	2,255	283	111	6	289
Village Creek food fish				0				38				0	
Harvest at Klukshu River weir				6				215				0	
Food fish above Klukshu Weir				100				1,909				0	

[a] Includes estimates of sport catch (kept and released) in Takhanne and Blanchard rivers; estimates based on salmon catch card information.

[b] Does not include released fish.

[c] The total food fish catch above the Klukshu Weir and at Village Creek are included in the weekly aboriginal catches.

Appendix E. 3. Daily counts of salmon passing through Klukshu River weir, 2002.

	Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
10-Jun	0	0	0.000	0	0	0.000	0	0	0.000
11-Jun	0	0	0.000	0	0	0.000	0	0	0.000
12-Jun	0	0	0.000	0	0	0.000	0	0	0.000
13-Jun	0	0	0.000	0	0	0.000	0	0	0.000
14-Jun	0	0	0.000	3	3	0.000	0	0	0.000
15-Jun	4	4	0.002	2	5	0.000	0	0	0.000
16-Jun	2	6	0.003	1	6	0.000	0	0	0.000
17-Jun	0	6	0.003	4	10	0.000	0	0	0.000
18-Jun	3	9	0.004	0	10	0.000	0	0	0.000
19-Jun	3	12	0.005	0	10	0.000	0	0	0.000
20-Jun	3	15	0.007	0	10	0.000	0	0	0.000
21-Jun	4	19	0.008	1	11	0.000	0	0	0.000
22-Jun	3	22	0.010	24	35	0.001	0	0	0.000
23-Jun	1	23	0.010	7	42	0.002	0	0	0.000
24-Jun	0	23	0.010	2	44	0.002	0	0	0.000
25-Jun	4	27	0.012	12	56	0.002	0	0	0.000
26-Jun	2	29	0.013	2	58	0.002	0	0	0.000
27-Jun	5	34	0.015	3	61	0.002	0	0	0.000
28-Jun	2	36	0.016	50	111	0.004	0	0	0.000
29-Jun	29	65	0.029	345	456	0.018	0	0	0.000
30-Jun	35	100	0.045	271	727	0.028	0	0	0.000
1-Jul	14	114	0.051	166	893	0.035	0	0	0.000
2-Jul	38	152	0.068	359	1,252	0.049	0	0	0.000
3-Jul	10	162	0.072	522	1,774	0.069	0	0	0.000
4-Jul	56	218	0.097	404	2,178	0.085	0	0	0.000
5-Jul	11	229	0.102	528	2,706	0.105	0	0	0.000
6-Jul	26	255	0.114	648	3,354	0.130	0	0	0.000
7-Jul	24	279	0.125	334	3,688	0.143	0	0	0.000
8-Jul	120	399	0.178	640	4,328	0.168	0	0	0.000
9-Jul	38	437	0.195	380	4,708	0.183	0	0	0.000
10-Jul	52	489	0.218	334	5,042	0.196	0	0	0.000
11-Jul	58	547	0.244	585	5,627	0.219	0	0	0.000
12-Jul	26	573	0.256	170	5,797	0.225	0	0	0.000
13-Jul	110	683	0.305	192	5,989	0.233	0	0	0.000
14-Jul	40	723	0.323	97	6,086	0.237	0	0	0.000
15-Jul	151	874	0.390	81	6,167	0.240	0	0	0.000
16-Jul	245	1,119	0.500	480	6,647	0.259	0	0	0.000
17-Jul	120	1,239	0.553	281	6,928	0.269	0	0	0.000
18-Jul	120	1,359	0.607	211	7,139	0.278	0	0	0.000
19-Jul	54	1,413	0.631	145	7,284	0.283	0	0	0.000
20-Jul	19	1,432	0.639	18	7,302	0.284	0	0	0.000
21-Jul	129	1,561	0.697	17	7,319	0.285	0	0	0.000
22-Jul	128	1,689	0.754	49	7,368	0.287	0	0	0.000
23-Jul	83	1,772	0.791	4	7,372	0.287	0	0	0.000
24-Jul	92	1,864	0.832	62	7,434	0.289	0	0	0.000
25-Jul	62	1,926	0.860	126	7,560	0.294	0	0	0.000
26-Jul	71	1,997	0.892	163	7,723	0.300	0	0	0.000
27-Jul	9	2,006	0.896	179	7,902	0.307	0	0	0.000
28-Jul	1	2,007	0.896	8	7,910	0.308	0	0	0.000
29-Jul	19	2,026	0.904	11	7,921	0.308	0	0	0.000
30-Jul	30	2,056	0.918	92	8,013	0.312	0	0	0.000
31-Jul	31	2,087	0.932	216	8,229	0.320	0	0	0.000
1-Aug	13	2,100	0.938	165	8,394	0.326	0	0	0.000
2-Aug	15	2,115	0.944	15	8,409	0.327	0	0	0.000
3-Aug	14	2,129	0.950	205	8,614	0.335	0	0	0.000
4-Aug	12	2,141	0.956	222	8,836	0.344	0	0	0.000
5-Aug	4	2,145	0.958	61	8,897	0.346	0	0	0.000
6-Aug	12	2,157	0.963	71	8,968	0.349	0	0	0.000
7-Aug	3	2,160	0.964	21	8,989	0.350	0	0	0.000
8-Aug	21	2,181	0.974	885	9,874	0.384	0	0	0.000
9-Aug	3	2,184	0.975	28	9,902	0.385	0	0	0.000
10-Aug	4	2,188	0.977	276	10,178	0.396	0	0	0.000
11-Aug	1	2,189	0.977	59	10,237	0.398	0	0	0.000
12-Aug	43	2,232	0.996	1,414	11,651	0.453	0	0	0.000
13-Aug	1	2,233	0.997	38	11,689	0.455	0	0	0.000
14-Aug	0	2,233	0.997	141	11,830	0.460	0	0	0.000
15-Aug	2	2,235	0.998	74	11,904	0.463	0	0	0.000
16-Aug	1	2,236	0.998	185	12,089	0.470	0	0	0.000

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	Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
17-Aug	2	2,238	0.999	200	12,289	0.478	0	0	0.000
18-Aug	0	2,238	0.999	594	12,883	0.501	0	0	0.000
19-Aug	1	2,239	1.000	662	13,545	0.527	0	0	0.000
20-Aug	1	2,240	1.000	133	13,678	0.532	0	0	0.000
21-Aug	0	2,240	1.000	21	13,699	0.533	0	0	0.000
22-Aug	0	2,240	1.000	464	14,163	0.551	0	0	0.000
23-Aug	0	2,240	1.000	697	14,860	0.578	0	0	0.000
24-Aug	0	2,240	1.000	231	15,091	0.587	0	0	0.000
25-Aug	0	2,240	1.000	367	15,458	0.601	0	0	0.000
26-Aug	0	2,240	1.000	470	15,928	0.620	0	0	0.000
27-Aug	0	2,240	1.000	152	16,080	0.625	0	0	0.000
28-Aug	0	2,240	1.000	401	16,481	0.641	0	0	0.000
29-Aug	0	2,240	1.000	159	16,640	0.647	0	0	0.000
30-Aug	0	2,240	1.000	134	16,774	0.652	0	0	0.000
31-Aug	0	2,240	1.000	302	17,076	0.664	0	0	0.000
1-Sep	0	2,240	1.000	492	17,568	0.683	0	0	0.000
2-Sep	0	2,240	1.000	113	17,681	0.688	0	0	0.000
3-Sep	0	2,240	1.000	439	18,120	0.705	0	0	0.000
4-Sep	0	2,240	1.000	105	18,225	0.709	0	0	0.000
5-Sep	0	2,240	1.000	57	18,282	0.711	0	0	0.000
6-Sep	0	2,240	1.000	236	18,518	0.720	0	0	0.000
7-Sep	0	2,240	1.000	495	19,013	0.739	0	0	0.000
8-Sep	0	2,240	1.000	163	19,176	0.746	0	0	0.000
9-Sep	0	2,240	1.000	519	19,695	0.766	0	0	0.000
10-Sep	0	2,240	1.000	892	20,587	0.801	0	0	0.000
11-Sep	0	2,240	1.000	244	20,831	0.810	1	1	0.000
12-Sep	0	2,240	1.000	27	20,858	0.811	0	1	0.000
13-Sep	0	2,240	1.000	271	21,129	0.822	0	1	0.000
14-Sep	0	2,240	1.000	327	21,456	0.835	0	1	0.000
15-Sep	0	2,240	1.000	149	21,605	0.840	0	1	0.000
16-Sep	0	2,240	1.000	88	21,693	0.844	0	1	0.000
17-Sep	0	2,240	1.000	106	21,799	0.848	1	2	0.000
18-Sep	0	2,240	1.000	3	21,802	0.848	2	4	0.000
19-Sep	0	2,240	1.000	559	22,361	0.870	15	19	0.002
20-Sep	0	2,240	1.000	86	22,447	0.873	23	42	0.004
21-Sep	0	2,240	1.000	319	22,766	0.885	67	109	0.011
22-Sep	0	2,240	1.000	119	22,885	0.890	58	167	0.017
23-Sep	0	2,240	1.000	103	22,988	0.894	74	241	0.024
24-Sep	0	2,240	1.000	493	23,481	0.913	219	460	0.046
25-Sep	0	2,240	1.000	414	23,895	0.929	229	689	0.069
26-Sep	0	2,240	1.000	436	24,331	0.946	401	1,090	0.110
27-Sep	0	2,240	1.000	143	24,474	0.952	198	1,288	0.130
28-Sep	0	2,240	1.000	47	24,521	0.954	746	2,034	0.205
29-Sep	0	2,240	1.000	34	24,555	0.955	432	2,466	0.249
30-Sep	0	2,240	1.000	13	24,568	0.956	245	2,711	0.273
1-Oct	0	2,240	1.000	76	24,644	0.959	565	3,276	0.330
2-Oct	0	2,240	1.000	29	24,673	0.960	241	3,517	0.355
3-Oct	0	2,240	1.000	15	24,688	0.960	260	3,777	0.381
4-Oct	0	2,240	1.000	38	24,726	0.962	246	4,023	0.406
5-Oct	0	2,240	1.000	30	24,756	0.963	251	4,274	0.431
6-Oct	0	2,240	1.000	287	25,043	0.974	586	4,860	0.490
7-Oct	0	2,240	1.000	308	25,351	0.986	1,198	6,058	0.611
8-Oct	0	2,240	1.000	81	25,432	0.989	893	6,951	0.701
9-Oct	0	2,240	1.000	6	25,438	0.989	29	6,980	0.704
10-Oct	0	2,240	1.000	0	25,438	0.989	20	7,000	0.706
11-Oct	0	2,240	1.000	4	25,442	0.990	188	7,188	0.725
12-Oct	0	2,240	1.000	1	25,443	0.990	419	7,607	0.767
13-Oct	0	2,240	1.000	44	25,487	0.991	211	7,818	0.788
14-Oct	0	2,240	1.000	133	25,620	0.996	623	8,441	0.851
15-Oct	0	2,240	1.000	41	25,661	0.998	228	8,669	0.874
16-Oct	0	2,240	1.000	50	25,711	1.000	1,252	9,921	1.000
17-Oct	0	2,240	1.000	0	25,711	1.000	0	9,921	1.000
18-Oct	0	2,240	1.000	0	25,711	1.000	0	9,921	1.000
Total Count		2,240			25,711			9,921	
Adjustments									
Catch at weir		6			215			0	
Catch above weir		100			1,909			0	
Total Escapement		2,134			23,587			9,921	

Appendix E. 4. Salmon catch and effort in the U.S. Commercial fishery in the Alsek River, 1960 to 2002.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1960							
1961	2,120	23,339	7,679	84	86	1,436	80.0
1962							
1963	131	6,055	7,164	42	34	692	68.0
1964	591	14,127	9,760	144	367	592	68.0
1965	719	28,487	9,638	10	72	1,016	72.0
1966	934	29,091	2,688	22	240	500	64.0
1967	225	11,108	10,090	107	30	600	68.0
1968	215	26,918	10,586	82	240	664	68.0
1969	685	29,259	2,493	38	61	807	61.0
1970	1,128	22,654	2,188	6	26	670	52.3
1971	1,222	25,314	4,730	3	120	794	60.5
1972	1,827	18,717	7,296	37	280	640	65.0
1973	1,757	26,523	4,395	26	283	894	52.0
1974	1,162	16,747	7,046	13	107	699	46.0
1975	1,379	13,842	2,230	16	261	738	58.0
1976	512	19,741	4,883	0	368	550	58.5
1977	1,402	40,780	11,817	689	483	882	57.0
1978	2,441	50,580	13,913	59	233	929	57.0
1979	2,525	41,449	6,158	142	263	1,110	51.0
1980	1,382	25,522	7,863	21	1,005	773	42.0
1981	779	23,641	10,232	65	816	588	40.0
1982	532	27,443	6,534	6	358	552	33.0
1983	94	18,293	5,253	20	432	487	38.0
1984	60	14,326	7,868	24	1,610	429	33.0
1985	213	5,792	5,490	3	427	277	33.0
1986	481	24,791	1,344	13	462	517	34.0
1987	347	11,393	2,517	0	1,924	388	40.5
1988	223	6,286	4,986	7	908	324	34.0
1989	228	13,513	5,972	2	1,031	378	38.0
1990	78	17,013	1,437	0	495	374	38.0
1991	103	17,542	5,956	0	105	530	49.0
1992	301	19,298	3,116	1	120	372	46.0
1993	300	20,043	1,215	0	49	372	40.0
1994	805	19,639	4,182	0	32	403	61.0
1995	670	33,112	14,184	13	347	879	53.5
1996	772	15,182	5,514	0	165	419	51.0
1997	568	25,879	11,427	0	34	611	59.0
1998	550	15,007	4,925	1	145	358	41.0
1999	482	11,441	5,660	0	112	319	44.0
2000	677	9,522	5,103	5	130	307	37.0
2001	541	13,995	2,909	8	17	234	50.0
Averages							
60-01	780	20,835	6,211	43	357	608	50.7
92-01	570	18,312	5,824	3	115	449	47.0
2002	700	16,918	9,525	0	1	270	73.0

Appendix E. 5. Salmon catch in the U.S. subsistence and personal use fisheries in the Alsek River, 1976-2002.

Catches are those reported on returned permits

	Catch		
Year	Chinook	Sockeye	Coho
1976	13	51	5
1977	18	113	0
1978			
1979	80	35	70
1980	57	41	62
1981	32	50	74
1982	87	75	50
1983	31	25	50
1984			
1985	16	95	0
1986	22	241	45
1987	27	173	31
1988	13	148	9
1989	20	131	34
1990	85	144	12
1991	38	104	0
1992	15	37	44
1993	38	96	28
1994	60	47	20
1995	51	167	53
1996	60	67	28
1997	38	273	26
1998	63	158	42
1999	44	152	21
2000	73	146	31
2001	19	72	45
Averages			
76-01	42	110	33
92-01	46	122	34
2002	60	232	35

Appendix E. 6. Salmon catches in the Canadian Aboriginal and sport fisheries in the Alsek River, 1976 to 2002.

	Chinook			Sockeye			Coho		
Year	Aboriginal	ecreational	Total	Aboriginal	ecreational	Total	Aboriginal	ecreational	Total
1976	150	200	350	4,000	600	4,600	0	100	100
1977	350	300	650	10,000	500	10,500	0	200	200
1978	350	300	650	8,000	500	8,500	0	200	200
1979	1,300	650	1,950	7,000	750	7,750	0	100	100
1980	150	200	350	800	600	1,400	0	200	200
1981	150	315	465	2,000	808	2,808	0	109	109
1982	400	224	624	5,000	755	5,755	0	109	109
1983	300	312	612	2,550	732	3,282	0	16	16
1984	100	475	575	2,600	289	2,889	0	20	20
1985	175	250	425	1,361	100	1,461	50	100	150
1986	102	165	267	1,914	307	2,221	0	9	9
1987	125	367	492	1,158	383	1,541	0	49	49
1988	43	249	292	1,604	322	1,926	0	192	192
1989	234	272	506	1,851	319	2,170	0	227	227
1990	202	555	757	2,314	392	2,706	0	75	75
1991	509	388	897	2,111	303	2,414	0	227	227
1992	148	103	251	2,592	582	3,174	0	213	213
1993	152	171	323	2,361	329	2,690	0	37	37
1994	289	197	486	1,745	261	2,006	8	69	77
1995	580	1,044	1,624	1,745	682	2,427	83	527	610
1996	448	650	1,098	1,204	157	1,361	56	9	65
1997	232	298	530	484	36	520	5	0	5
1998	171	175	346	567	18	585	72	40	112
1999	238	174	412	554	0	554	0	28	28
2000	65	77	142	745	0	745	51	1	52
2001	120	157	277	1,173	4	1,177	5	94	99
Averages									
76-01	272	319	591	2,594	374	2,968	13	113	126
92-01	244	306	551	1,317	207	1,524	28	102	130
2002	120	197	317	2,194	61	2,255	6	283	289

Appendix E. 7. Annual Klukshu River weir counts of Chinook, sockeye, and coho salmon, 1976 to 2002.

The escapement count equals the weir count minus the aboriginal fishery catch above the weir and broodstock taken.

	Chinook		Sockeye				Coho[a]	
Year	Count	Escape.[c]	Early[c]	Late	Total	Escape.	Count	Escape.[b]
1976	1,278	1,153	181	11,510	11,691	7,941	1,572	
1977	3,144	2,894	8,931	17,860	26,791	15,441	2,758	
1978	2,976	2,676	2,508	24,359	26,867	19,017	30	
1979	4,404	2,454	977	11,334	12,311	7,051	175	
1980	2,637	2,487	1,008	10,742	11,750	10,850	704	
1981	2,113	1,963	997	19,351	20,348	18,448	1,170	
1982	2,369	1,969	7,758	25,941	33,699	28,899	189	
1983	2,537	2,237	6,047	14,445	20,492	18,017	303	
1984	1,672	1,572	2,769	9,958	12,727	10,227	1,402	
1985	1,458	1,283	539	18,081	18,620	17,259	350	
1986	2,709	2,607	416	24,434	24,850	22,936	71	
1987	2,616	2,491	3,269	7,235	10,504	9,346	202	
1988	2,037	1,994	585	8,756	9,341	7,737	2,774	
1989	2,456	2,289	3,400	20,142	23,542	21,636	2,219	
1990	1,915	1,742	1,316	24,679	25,995	24,607	315	
1991	2,489	2,248	1,924	17,053	18,977	17,645	8,540	8,478
1992	1,367	1,242	11,339	8,428	19,767	18,269	1,145	1,145
1993	3,302	3,220	5,369	11,371	16,740	14,921	788	788
1994	3,727	3,628	3,247	11,791	15,038	13,892	1,232	1,232
1995	5,678	5,394	2,289	18,407	20,696	19,817	3,614	3,564
1996	3,599	3,382	1,502	6,818	8,320	7,891	3,465	3,465
1997	2,989	2,829	6,565	4,931	11,496	11,303	307	302
1998	1,364	1,347	597	12,994	13,591	13,580	1,961	1,961
1999	2,193	2,168	371	5,010	5,381	5,101	2,531	2,531
2000	1,365	1,321	237	5,314	5,551	5,422	4,832	4,791
2001	1,825	1,738	908	9,382	10,290	9,329	748	746
Averages								
76-01	2,547	2,320	2,887	13,859	16,745	14,484	1,666	
92-01	2,741	2,627	3,242	9,445	12,687	11,953	2,053	2,053
2002	2,240	2,134	11,904	13,807	25,711	23,587	9,921	9,921

[b] Weir was removed prior to the end of the coho run.

[b] The chinook and sockeye escapements into Klukshu Lake are calculated from the weir count minus fish harvested above the weir site minus broodstock taken. The remainder of the food fishery harvest occurred below the weir, at Village Creek, and Blanchard and Takhanne Rivers.

[c] Includes sockeye counts up to and including August 15.

Appendix E. 8. Alsek River sockeye salmon escapement 2000 to 2002.

The estimates are based on a mark-recapture study.

	Inriver Run	Confidence Interval		Canadian	Spawning	U.S.	Total	Percent
Year	Estimate	Lower	Upper	Catch	Escapement	Catch	Run	Klukshu
2000	37,887	23,410	52,365	745	37,142	9,668	47,555	14.7%
2001	31,164	23,143	39,185	1,177	29,987	14,067	45,231	33.0%
2002	95,427	55,893	134,961	2,255	93,172	17,150	112,577	26.9%

Appendix E. 9. Alsek River sockeye salmon counts from U.S. and Canadian aerial surveys and from the electronic counter at Village Creek, 1985-2002.

Surveys not made every year at each tributary.

	U.S. Aerial Surveys				Canada Aerial Surveys		
Year	Basin Creek	Cabin Creek	Muddy Creek	Tanis River	Tatshenshini River	Neskataheen Lake	Village Creek Counter
1985	2,600			2,200			
1986	100		300	2,700	536	750	1,490
1987	350	220		1,600			1,875
1988	500			750	433	456	**433**
1989	320			680	1,689	1,700	9,569
1990	275	300		3,500			**5,313**
1991				800			**86**
1992	1,000	10		50			**7,447**
1993	4,800			900			**2,104**
1994	250			600	366		**3,921**
1995	2,700			350			4,042
1996	325			650			1,583
1997	600			350			2,267
1998				130			826
1999	30			800			**NA**
2000	25			180			1,860
2001				700			**1,897**
Averages							
85-01	991			996			3,882
92-01	1,216			471			3,521
2002	No surveys fllown in 2002						**2,725**

[a] Includes several streams from Lo-Fog to Goat Creek.

Bold are incomplete counts

Appendix E. 10. Aerial survey index counts of Alsek River Chinook salmon escapements, 1984 to 2002.

Year	Blanchard River	Takhanne River	Goat Creek
1984	304	158	28
1985	232	184	
1986	556	358	142
1987	624	395	85
1988	437	169	54
1989	No Survey -Poor Cond.	158	34
1990	No Survey -Poor Cond.	325	32
1991	121	86	63
1992	86	77	16
1993	326	351	50
1994	349	342	67[a]
1995	338	260	
1996	132	230	12
1997	109	190	
1998	71	136	39
1999	371	194	51
2000	163	152	33
2001	543	287	21
Averages			
84-01	298	225	48
92-01	249	222	36
2002	351	220	86

[a] Late survey date which missed the peak of spawning.

Appendix E. 11. Alsek River run of large Chinook salmon, 1997-2002. Estimates are based on a mark-recapture study and include the percent of Chinook salmon.

Estimates are based on a mark-recapture study and include the percent of Chinook salmon spawning in Klukshu River.

	Inriver Run			U.S. Catch		Total	Canadian Catch		
	Past	Confidence Interval		Dry Bay		Inriver			
Year	Dry Bay	Lower	Upper	Commercial	Subsistence	Run	Aboriginal	Sport	Escapement
1997	15,250	9,081	21,418	568	38	15,856	232	298	14,720
1998	4,967	3,027	9,765	550	63	5,580	171	175	4,621
1999	11,969	8,243	22,035	482	44	12,495	238	174	11,557
2000	8,432	6,805	14,308	677	73	9,182	65	77	8,290
2001	11,246	9,146	14,303	541	19	11,806	120	157	10,969
2002	8,807	8,345	10,790	700	60	9,567	120	197	8,490
2003	5,105	4,302	6,310	937	24	6,066	90	138	4,877
2004	7,565			656	38	8,259	139	46	7,380
Averages									
97-04	9,168			639	45	9,851	147	158	8,863

Klukshu weir count of large chinook salmon as a percent of the Alsek escapement of large chinook salmon

	Weir Count		Percent
	All	Large	Klukshu
1997	2,989	2,864	19.5%
1998	1,364	1,184	25.6%
1999	2,193	1,663	14.4%
2000	1,365	1,218	14.7%
2001	1,825	1,538	14.0%
2002	2,240	2,067	24.3%

Appendix E. 12. Aerial survey counts of coho salmon from U.S. lower Alsek River tributaries, 1985-2002.

Year	Combined U.S. Tributary Counts
1985	450
1986	1,100
1987	100
1988	1,900
1989	1,990
1990	1,600
1991	**500**
1992	**1,010**
1993	**800**
1994	**975**
1995	1,050
1996	1,550
1997	No surveys due to poor weather conditions
1998	500
1999	No surveys due to poor weather conditions
2000	620
Averages	
85-00	1,010

Appendix F. 1. Tahltan Lake egg collection, fry plants, and survivals, 1989-2002.

Number for eggs and fry are millions. Eggs collected from Tahltan broodstock are used for outplants to both Tahltan and Tuya Lakes.

	Egg Take		Designated	Fry	Percent	Survival		Thermal
						Fertilized	Green	Mark
Brood Year	Target	Collected[a]	Tahltan	Planted	Fertilized	Egg to Fry	Egg to Fry	Pattern
1989[a]	3.000	2.955	2.955	1.042	0.704	0.501	0.353	1:1.4
1990	5.000	4.511	4.511	3.585	0.824	0.964	0.795	1:1.3
1991	5.000	4.246	1.514	1.415	0.949	0.984	0.935	1:1.4
1992	5.400	4.901	2.154	1.947	0.919	0.983	0.904	1:1.5+2.3
1993	6.000	6.140	0.969	0.904	0.946	0.986	0.933	1:1.6+2.5N
1994	6.000	4.183	1.418	1.143	0.929	0.868	0.806	1:1.6
1995	6.000	6.891	3.008	2.296	0.906	0.843	0.763	1:1.7
1996	6.000	6.402	3.169	2.313	0.923	0.791	0.730	1:1.6
1997	6.000	3.221	2.700	1.900	0.812	0.867	0.704	2:1.6
1998	6.000	4.022	1.998	1.671	0.911	0.918	0.836	1:1.7
1999	6.000	3.505	2.773	2.228	0.901	0.892	0.803	2:1.6
2000	6.000	2.388	2.388	1.873	0.920	0.853	0.784	1:1.7
2001	6.000	3.306	3.306	2.533	0.829	0.924	0.766	2:1.6
Averages								
89-01	5.569	4.359	2.528	1.912	0.883	0.875	0.778	
2002	6.000	4.050	2.780	2.623	0.926	1.019	0.944	1:1.7

Appendix F. 2. Tuya Lake fry plants and survivals, 1991-2002.

Numbers for eggs and fry are millions

	Egg Take			Survival		Thermal
	Designated	Fry	Percent	Fertilized	Green	Mark
Brood Year	Tuya	Planted	Fertilized	Egg to Fry	Egg to Fry	Pattern
1991	2.732	1.632	0.944	0.633	0.597	1:1.6
1992	2.747	1.990	0.929	0.780	0.724	1:1.7
1993	5.171	4.691	0.911	0.996	0.907	1:1.4+2.5N
1994	2.765	2.267	0.870	0.943	0.820	1:1.4
1995	3.883	2.474	0.795	0.802	0.637	1:1.4+2.4
1996	3.233	2.614	0.932	0.868	0.809	1:1.4
1997	0.521	0.433	0.911	0.912	0.831	2:1.4
1998	2.024	1.603	0.917	0.864	0.792	1:1.4
1999	1.053	0.867	0.960	0.858	0.823	2:1.4
2000[a]	0.000	0.000				
2001[a]	0.000	0.000				
Averages						
91-01	2.194	1.688	0.908	0.850	0.771	
2002	1.271	1.124	0.904	0.978	0.884	1:1.7+2.3

[a] All eggs collected in 2000 and 2001 were for backplant into Tahltan Lake.

Appendix F. 3. Tatsamenie Lake egg collection, fry plants, and survivals, 1989-2002.

						Survival[b]			Last
	Egg Take			Fry	Percent	Fertilized	Green		Date
Brood Year	Target	Collected[a]	Transport	Planted	Fertilized	Egg to Fry	Egg to Fry	Thermal Mark Pattern	Released
1990	2.500	0.985	0.985	0.673	0.775	0.882	0.683	1:1.3	22-Jun
1991	1.500	1.360	1.360	1.232	0.927	0.977	0.906	2:1.4	26-Jun
1992	1.750	1.486	1.486	0.909	0.858	0.713	0.612	1:1.5	14-Jul
1993	2.500	1.144	1.144	0.521	0.619	0.735	0.455	2:1.5	14-Jul
1994	2.500	1.229	1.229	0.898	0.801	0.912	0.731	1:1.5	21-Jul
1995	2.500	2.407	2.407	1.724	0.843	0.850	0.716	1:1.5	25-Jun
1996	5.000	4.934	4.934	3.945	0.849	0.942	0.800	1:1.5&1:1.5,2.3	27-Jun
1997	5.000	4.651	4.651	3.597	0.910	0.850	0.773	2:1&2:1.5,2.3	9-Jul
1998	2.500	2.414	2.414	1.769	0.897	0.817	0.733	1:1.4+2.5&1:1.4+2.3	30-Jun
1999	2.500	0.461	0.461	0.350	0.922	0.824	0.759	2:1.5	4-Jul
2000	3.000	2.816	2.572	2.320	0.943	0.956	0.902	1.1.5+2.3&1.1.5	26-Jun
2001	4.800	4.364	3.499	2.233	0.900	0.709	0.638	2:1.5&2:1.5,2.3	25-Jun
Averages									
90-01	3.004	2.354	2.262	1.681	0.854	0.847	0.726		
2002	3.000	2.498	2.302	1.353	0.823	0.714	0.588	1:1.4&1:1.4+2.3	27-May

Multiple Release Treatments

	Treatment 1				Treatment 2			
				Last				Last
			Number	Date			Number	Date
Brood Year	Mark	Treatment	Released	Released	Mark	Treatment	Released	Released
1996	1:1.5	onshore	3.441	27-Jun	1:1.5,2.3	onshore	0.500	27-Jun
1997	2:1.5	onshore	3.202	29-Jun	2:1.5,2.3	fed at lake	0.394	9-Jul
1998	1:1.4+2.5	unfed	0.751	9-Jun	1:1.4+2.3	fed at lake	1.018	30-Jun
1999	2:1.5	fed at lake	0.350	4-Jul				
2000	1.1.5+2.3	fed early	1.265	15-Jun	1.1.5	fed late	1.054	26-Jun
2001	2:1.5	unfed early	0.727	30-May	2:1.5,2.3	fed	1.432	25-Jun
2002	1:1.4	direct release early	0.911	27-May	1:1.4+2.3	fed - IHN loss	0.000	none

[a] Eggs not transported but placed in inlake incubator; 2000 = 244,000, 2001 = 865,000, 2002 196,000.

[b] Survival rates are for hatchery eggs and hatchery fry plants and do not inlcude the lake incubators.